

1915

# Linn County Nursery

SNYDER BROTHERS, Proprietors



HANSKA PLUM

DESCRIPTIVE CATALOGUE

## FRUIT TREES, SMALL FRUITS

EVERGREENS and ORNAMENTALS

Center Point, Iowa

# *Directions For Ordering*

**Route.** If you have a preference, state whether you want your stock sent by freight, express or mail, and by what route. We have American and Wells Fargo Express; the C., R. I. & P. Railway; and the Cedar Valley Interurban, which makes quick connections with the main lines of the Illinois Central and Great Western at Waterloo and the N. W. and C., M. & St. Paul at Cedar Rapids, as well as the Iowa City, Mt. Vernon and Marion Interurban lines.

**Size and Price** of stock should be carefully specified. We use every effort to avoid mistakes, but in a busy season these occasionally occur. If notified promptly of any mistakes, however, we will gladly rectify them.

**Please Remit Cash with Order** whenever possible, especially with small orders. Satisfactory security is required from strangers who desire to open an account with us. Remittance may be made by check, draft, money order or registered letter. Stamps are acceptable for amounts up to \$1.00. Make remittances payable to Snyder Bros.

**Order Early.** Every spring we are compelled to refuse orders for certain lines of stock of which we are entirely sold out. Order early and you will be more sure of getting what you want as well as the choicest stock.

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State of Iowa

## **Certificate of Nursery Inspection**

Office of State Entomologist

Ames, Iowa

**This is to Certify,** That in accordance with Chapter 53 of the Acts of the Twenty-seventh General Assembly, as amended by the Thirty-first General Assembly (Code Section 2575-a51), the nursery stock for sale by the Linn County Nurseries, Snyder Bros., Props., of Center Point, Iowa, has been inspected by a duly authorized inspector and has been found apparently free from dangerously injurious insects and plant diseases.

This certificate is invalid after July 31, 1915.

Certificate No. 133.

Dated November 12, 1914.

J. E. GUTHRIE,  
Asst. State Entomologist.

# The Linn County Nursery



The Linn County Nursery was established in 1892 by A. Snyder & Son. After the death of the senior member of the firm, it was conducted for several years by S. W. Snyder, who in 1907 was joined by a younger brother under the firm name of Snyder Bros. Both the present members, therefore, have had long experience in this business, and in over twenty years have seen it grow from a few rows of stock on the farm to the large acreage of stock growing mostly at Center Point.

The orchard originally planted by A. Snyder has been greatly enlarged and now contains hundreds of varieties and more are being added every year. From the start it has been the aim of the proprietors to use as parent trees only those trees of a variety which have produced the best results in the orchard; this makes our trees what many call "pedigreed stock." Practically all our cions are grown in our own orchard. Those which are not, are procured from the most reliable sources. We never send out want lists to see where they can be bought cheapest.

**Descriptions.** It is our intention in this catalog to furnish accurate descriptions and in every case avoid exaggerations which are so common in nursery catalogs. We aim to test out every variety in our orchard before giving it a place in the catalog.

**Packing Facilities.** Few nurseries are as well equipped to handle retail orders for a large large line of stock as we are. Our main building is 100x100 with storage cellar 60x64, graft cellar, label room, etc., and is fitted with modern appliances for handling heavy boxes, maintaining proper humidity, etc. None of our stock is handled outside. We use particular care to see that every box and bale is well papered and the roots well covered with moist packing.

**Location.** Our office and packing house are located three blocks south of the C., R. I. & P. and Cedar Valley Interurban stations and the main nursery extends one-half mile southeast along their tracks. Thirty passenger trains pass by or through the nursery daily, making it an easy point to get to or from and giving splendid express service.

**Prices.** The prices we usually quote are for first-class stock of the larger sizes. We will quote the lighter and smaller grades upon request. There is every indication that prices of many things will be higher hereafter because of the European war, as most of the small seedlings used in budding pears and cherries and a great many of the ornamental shrubs are imported from France, Germany and Belgium and these countries will have but few to export another year.

**Guaranty.** We exercise great care to keep our varieties true to name, and are ready at any time to replace any stock that may prove untrue, or refund the amount paid for same; but it is mutually agreed that we are not to be held liable for any amount greater than the original price of the goods.

**Condition.** We accept all orders on condition that they shall be void should any injury befall the stock from hail, frost, storm, fire or other causes over which we have no control.

**Certificate.** A certificate of Nursery Inspection, certifying that our nurseries have been inspected by the State Entomologist and found free from all dangerous insects, pests and diseases, is attached to all orders that leave our nurseries.

**Visitors Welcome.** Tree lovers find much satisfaction in seeing and selecting the stock they buy; we therefore take pleasure in inviting all interested in nursery stock to visit our nurseries and inspect the stock while it is growing.

Anyone wanting extra large and fine specimens of Evergreens or Shade Trees can select them at any time of the year. Anything thus selected will be tagged with the customer's name and delivered at the proper time.

**Varieties Not Listed in This Catalog.** We have some stock of many trees and plants not listed in this catalog. If what you want is not listed, write us; we may have it, and if not, can secure anything grown by American nurserymen at a reasonable price.

**SNYDER BROTHERS, Center Point**



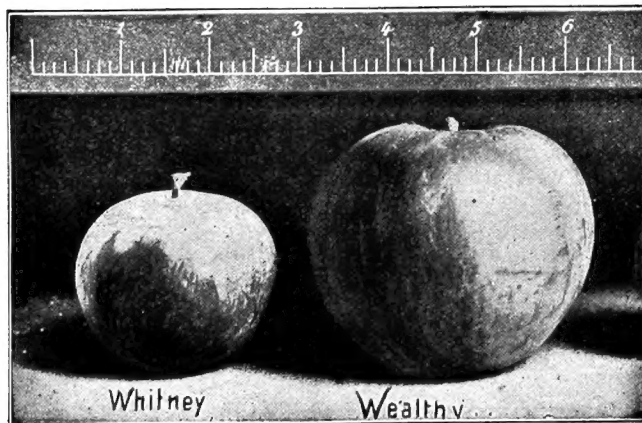
Apples thrive in almost any well drained soil. They respond to good care and cultivation and pay well for it. A farm with a well cared for orchard will sell for much more than one without. The old orchard is one of the last things forgotten about an old homestead.

**Commercial Orchardng.** Iowa is in the heart of the apple producing region of the United States. Commercial orcharding has great possibilities here. By intensive methods it has been proved that apples can be made as sure a crop here as anywhere, and many well tended orchards are yielding large profits to their owners. The quality of Iowa apples cannot be excelled and their size and color compares well with that of the more tasteless apples of the West.

**Varieties.** In planting a commercial orchard it is judicious to plant but a few varieties and these should be selected with reference to securing the best pollination. Experience has shown that large blocks of single varieties are often more or less barren. Home orchards should be selected to have fruit from early until late.

**Size to Plant.** For commercial orchards it is always best to choose small, thrifty trees one or two years old and from three to five feet high, as these are more safely transplanted and with more satisfactory results than older and larger trees; in fact, the three to four-foot size is now being more used in commercial planting than any other.

**How Propagated.** Our apple trees are grafted by the most approved methods, aiming to produce trees best adapted to withstand the rigors of this climate. We use the piece root and long cion and plant up to the top bud. This makes a tree on its own roots and of known hardiness. Experience has repeatedly proved that trees budded or grafted on whole roots are not harder than the seedling roots used, which are very variable and often too tender. Orchards of budded or "whole root" trees after a test winter will be found to contain scattering live trees surrounded by dead ones of the same varieties, because they had no roots of their own and only a few of the seedlings upon which they were budded or grafted were hardy enough to survive.



## Summer Apples

**Beautiful Arcade**—Medium large, yellow with red splashes and streaks. Flesh white, tender, sweet and very pleasant. Last of August and September. Tree an upright grower, very hardy and vigorous; one of the most desirable varieties for the north and northwest.

**Benoni**—Medium, round, yellow with red stripes; of excellent quality. August. An old variety much prized by many.

**Colton** (Early Colton)—Medium to large, round, yellow, juicy and rich; excellent for eating or cooking. Very hardy, vigorous and prolific.

**Duchess** (Oldenburg, Duchess of Oldenburg)—Large, yellow with large stripes; sour. Very valuable for market and culinary purposes. August and September. A Russian variety which is very hardy, vigorous and prolific.

**Liveland**. (Liveland Raspberry, Lowland Raspberry)—Medium to large, beautifully blushed, round; flesh tender, mild and delicious. The first to ripen and best of the early apples. Tree very hardy, thrifty and prolific.

**Red Astrachan**—Large; red; sour but of good quality. August.

**Sops of Wine**—Medium to large, roundish; red; flesh mild and of excellent quality. August and September.

**Summer Pear**—Large, round; yellow, with red cheek; mild, melting and very good. Very hardy, vigorous, and a new variety of much promise.

**Tetofsky** — Medium; yellowish, with red stripes; acid, of good quality. August. A hardy, slow growing variety.

**Yellow Transparent**—Large; yellow; sour; of good quality and very early. One of the hardest of varieties but very subject to blight.

**Balley Sweet**—Medium to large, round, red striped, sweet and good. September to November.

**Chenango** (Chenango Strawberry)—Large to very large; yellow, red striped; mild and very good. August and September.

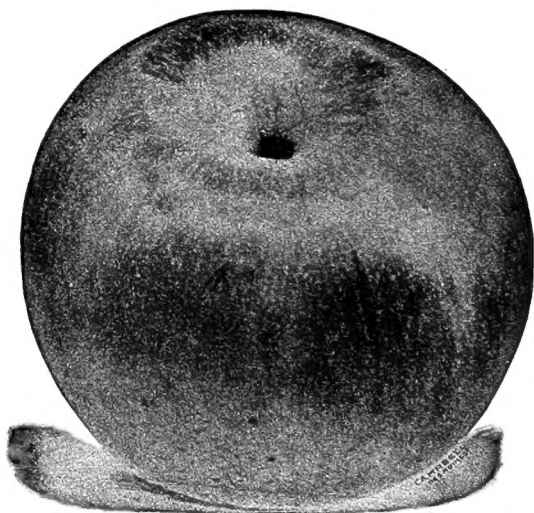
**Eastman**—Large, roundish; yellow, reddish striped; good. September to October. Very hardy and vigorous.

**Fall Bellflower**—Large; yellow; mild and good. September to November.

**Fall Orange**—Large to very large, round; reddish-yellow; mild and good. September to October. A variety which does extremely well in some localities.

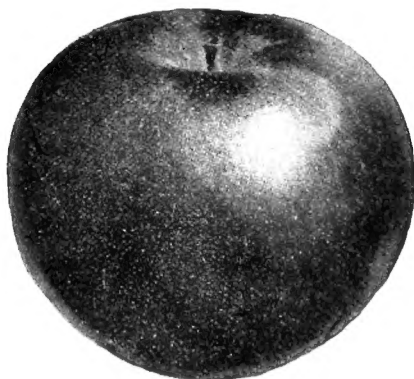
**Hibernal**—Large; red striped; very sour; of poor quality. September and October. Extremely hardy; valuable as a stock for top-working.

**Irish Peach**—Medium; yellowish; beautifully blushed; flesh juicy, acid and good.



Liveland.

## Fall Apples



Grimes Golden.

**Anisim**—Medium, roundish deep red, mild and very good. September and October. One of the hardest and most prolific of all varieties.

Ripens just after Duchess. Tree very hardy and prolific.

**Lord's L** (Lord's Longfield)—Medium, roundish, solid, bright red and of fine quality. A very early and heavy bearer; thrifty and hardy. A splendid new variety. October to November.

**Longfield**—Medium or small if not thinned; round; yellow with red blush; flesh white; fine grained; tender, and richly flavored. October and later. Very hardy, and extremely prolific; often bears in the nursery. One of the very best apples on the list for culinary purposes.

**None Such**—Large, handsome, yellow overlaid with red, tender, and has a distinct flavor. A good grower and heavy bearer. November to January.

**Wealthy**—Large to very large; roundish; yellow, red striped; flesh mild, very good. October and November. Valuable for home use or market. It is a winter apple in the north; one of the best varieties for cold storage.

**Wolf River**—Very large; roundish; white with red stripes; mild; of fair quality for cooking.

## Winter Varieties

**Akin**—Akin's Red. Much like Jonathan. Medium, round, red; very good. Vigorous, hardy, and a high quality apple.

**Allen's Choice**.—Medium, roundish, striped, very good, juicy and aromatic. December to March. A very early bearer; vigorous and hardy.

**Arctic**—Large, roundish, yellow with red; mild and good. December to February.

**Baldwin**—Medium to large, bright red, crisp and juicy. An Eastern variety which succeeds well here in some localities. December to March.

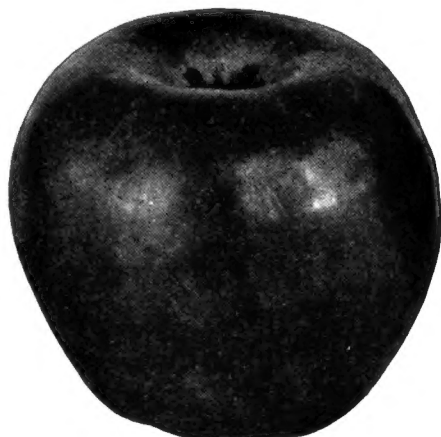
**Ben Davis**—Large to very large; yellow with red stripes; mild and of fair quality. A late variety; valuable chiefly for market; should not be planted much north of Central Iowa.

**Black Annette**—Medium size; roundish; very dark green and red; mild and good. December to April. One of the most valuable for domestic purposes.

**Black Ben Davis**—(Regan's Red). Large to very large; dark red mild and very good. December to March. Larger, better colored and somewhat better than Ben Davis, but of about the same hardiness.



In the Nursery Row.



Delicious.

**Brilliant**—Large, brilliant deep red, very juicy, nearly sweet with a pleasant flavor. A hardy and productive seedling of Snow which keeps later.

**Canada Baldwin**—Large, roundish, red and good. December to March; a very hardy, vigorous and upright growing variety.

**Champion** (Collin's Red)—Large, bright red, good. A market variety of the Ben Davis type, but keeps longer. Vigorous, healthy, and a regular bearer.

**Colorado Orange**—Large, bright yellow; flesh firm, tender and juicy; desirable for all purposes. Hardy, vigorous and productive. January to April.

**Delicious** (Peru)—Medium to large; yellow with red stripes; very fragrant and of the very best quality. November to February.

**English Golden Russet**—Medium clear golden russet with slight blush; tender, crisp, juicy and high flavored. Hardy and productive. November to April.

**Gano**—Large to very large, mild and good. Very prolific. December to March. Most profitable for a market variety.

**Grimes** (Grimes Golden)—Medium to large; deep yellow; mild and of very best quality. December to March. One of the very best apples for domestic or commercial planting.

**Hinkley** (Lone Tree Seedling, Ideal, Legal Tender)—Fruit almost identical with Rome Beauty, but tree more hardy and vigorous. A promising new variety.

**Iowa Blush**—Medium or small; roundish; greenish-yellow with red blush; mild and very good. December to March. Valuable for home use; very hardy and productive.

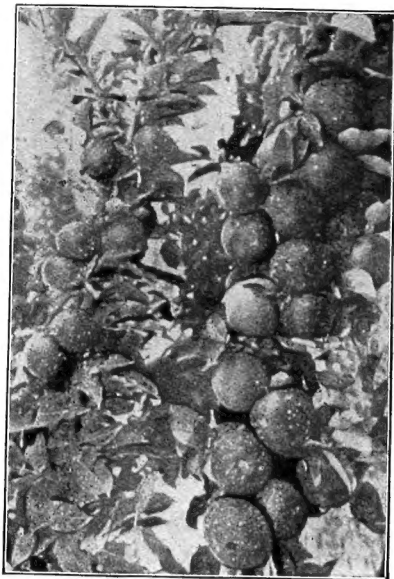
**Isherswood**—Large to very large; roundish; yellow with red blush; mild and good. January to April. Healthy and very vigorous. A good variety for Central Iowa.

**Janet** (Jeniton, Rall's Janet)—Medium size; yellow with red stripes; mild and good. December to March. Should not be planted north of Central Iowa.

**Snow**—Medium; roundish; red-striped or crimson; flesh mild; snow white; juicy; very highly flavored and delicious. November and December. One of the very best apples of its season.



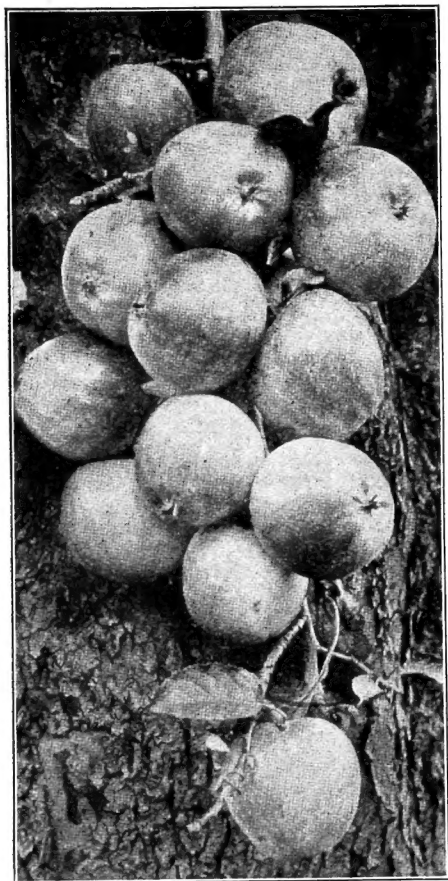
- Jonathan**—Medium to large; roundish or conical, yellow and red, mild and very good. December to March. One of the most valuable for all purposes up to Central Iowa.
- King David**—Medium, dark red, somewhat mottled; flesh yellowish, with considerable of the Jonathan flavor, but richer, firmer and keeps later. A promising new variety.
- Malinda**—Large, yellow and red, mild and good. December to March. Very hardy, vigorous and prolific. One of the most valuable for planting in the North.
- Magnate (Magnet)**—Medium to large; rich dark crimson; flesh yellowish, fine grained, juicy, rich and of very good quality. A promising Winesap seedling. October to January.
- Mann**—Large, roundish, yellowish green, mild and keeps very late.
- McIntosh Red**—Large, round, yellow and red; mild and good. December to February. A splendid apple of the Fameuse type.
- Nelson Sweet**—Large; roundish; dark green; very sweet and good. Keeps all winter. A strong, free grower and very hardy.
- Northern Spy**—Large to very large; roundish; yellow with red stripes; mild and very good. December to March. An old variety which is gaining in popularity. We have been propagating our stock from a superior strain of this variety which we believe to be one of the best things on our list.
- Northwestern Greening**—Large to very large; green or yellowish green, mild and good. One of the very best cooking apples and especially fine for baking. On this account it sells well wherever known. December to April. Tree very hardy, vigorous and prolific.
- North Star**—Large, roundish, red and yellow, mild and good. November to December. Very vigorous and hardy; one of the best for commercial planting in the North but ripens too early here.
- Paradise Winter Sweet**—Large; roundish; yellow; sweet and very good. The best of all sweet apples for cooking. December to March. Hardy and very vigorous, but not very prolific in some localities.
- Patten (Patten's Greening)**—Large to very large; round, yellow and good. October. A very hardy, crooked growing tree. Especially valuable in the North where it is a winter apple.
- Plum Cider**—Large; yellow with red stripes; mild; good. October to December, and later.
- Roman Stem**—Medium to large; round; yellow; red blushed; mild; very good. December to April. An old variety unexcelled for home use; one of the very best for cooking.
- Salome**—Large; round; yellow and red; mild and good. December to April. A very beautiful apple which is rapidly becoming popular.
- Sheriff**—Medium to large; red mild and good. December to February. Bears early and regular. A variety too little known.
- Stayman (Stayman Winesap)**—Large to very large; roundish; red mild and good. December to March. A seedling of the old Winesap, of much the same color and quality, but larger and harder. One of the best for commercial planting.
- Talman Sweet**—Medium to large; yellow; very sweet and good. December to February.
- University**—Large; clear yellow with small dots; flesh yellow; pleasant; sub-acid and very good. Late fall and early winter.
- White Pippin**—Large to very large; roundish; white with a little red and yellow; mild and very good. December to March.
- Windsor**—Medium to large; round; yellow and red; mild and good. December to February.
- Willow Twig**—Large; roundish; yellow and red; mild and good. February to April.
- Winter Banana**—Large; round; bright yellow; mild; very good. December to March.
- Winter Fameuse**—Medium size; roundish; not as well colored as Fameuse or Snow; of the same quality, but keeps two or three months longer.
- Welsmer's Dessert**—Medium to large; yellow and red; mild and delicious. December to March. An apple of very high quality.
- Yellow Belleflower**—Large to very large; yellow; very good for all purposes. November to January.
- Wagener**—Large, roundish, yellow and red striped, mild and good. December to March. Very prolific, often bearing at three years of age.



Transcendent.

## Crab Apples

These hardy and beautiful trees should be among the first things planted. They can be depended upon to stand where other apples are not hardy enough, and produce an abundance of good fruit. Many of them make splendid eating apples and are a great delight to children. Prices, the same as for apples.



**Golden Beauty.**

**Golden Beauty**—Very large and handsome golden yellow; very good.

**Hyslop**—Dark red; popular and hardy, except for blight. November to February.

**Red Siberian**—Medium to large, red; very prolific. September. A splendid eating apple; prolific and hardy.

**Sweet Russet**—Large to very large; yellow with some russet; very sweet and rich; a delightful eating apple. September.

**Soulard**—Very large, yellowish, with a Wild Crab flavor. February to June. Valuable for cooking.

**Transcendent**—Large; yellow and red; very good. Tree hardy, but blights badly.

**Whitney No. 20**—Large to very large, greenish and red, very juicy and good. A splendid variety for eating and cooking. Tree very vigorous, hardy and handsome. Universally liked.

**Wild Red Crab**—A hybrid of the wild crab and cultivated apple. Fruit is as large as Whitney, red nearly all over, and keeps the year round. It has the aroma and flavor of the wild crab which makes it just the thing for people who like the sauce of the wild crab, as it is so much larger. The tree is far the most vigorous of any apple tree we ever grew, is very easy to transplant, makes a beautiful symmetrical tree, and is a regular and extremely heavy bearer.

**Briar Sweet**—Medium; yellowish with red blush; very sweet and good. August to September. Slightly bitter if not fully ripe.

**Florence**—Large; yellow and red; very good for all purposes. Very hardy and productive.

**Gideon**—Large; yellow and white; very good. One of the best of the new varieties.



**Whitney Crab**



## Pears

Although formerly considered very unfavorable for Pear growing, Iowa soil and climate are proving themselves well adapted to the production of several varieties. No one should plant Pears extensively in this state without first assuring himself what varieties will succeed in his soil, but with proper investigation, we are convinced that every section of Iowa will produce some variety of Pear with excellent results. As a commercial fruit the pear stands close to the apple and the peach, and we are convinced that the time is near at hand when Iowa will grow the pears needed for its own markets.

The varieties listed below are considered especially free from blight, which is the great enemy of the Pear. This disease usually shows itself by the blackening and drooping of the leaves, and is controlled by cutting off the infected branches several inches beyond the point to which the disease extends and burning them. Dipping the pruning tools frequently during the process in a solution of bi-chloride of mercury will prevent their spreading the disease.

**Dwarf Pears**—Varieties marked with a \* can be furnished in dwarfs; these are budded on Quince root. Large size, caliper  $\frac{3}{4}$ -inch and up, same price as large-sized standards.

\***Bartlett**—Large; yellow and red; juicy; melting and highly flavored. August and September. This excellent variety blights badly in many places in Iowa, so cannot be recommended for general planting.

**Flemish Beauty**—Large to very large; yellow with red blush; melting; juicy; sweet and good. September.

**Garber**—Large to very large; yellow and red; firm and granular; juicy and acid; of fair quality. October. A very vigorous grower.

\***Kieffer**—Large; yellow; russeted; granular; juicy and sweet. October and November. A very hardy, vigorous variety, remarkably free from blight. An early and abundant bearer; valuable chiefly for cooking and canning. The fruit should be kept until well ripened before using.

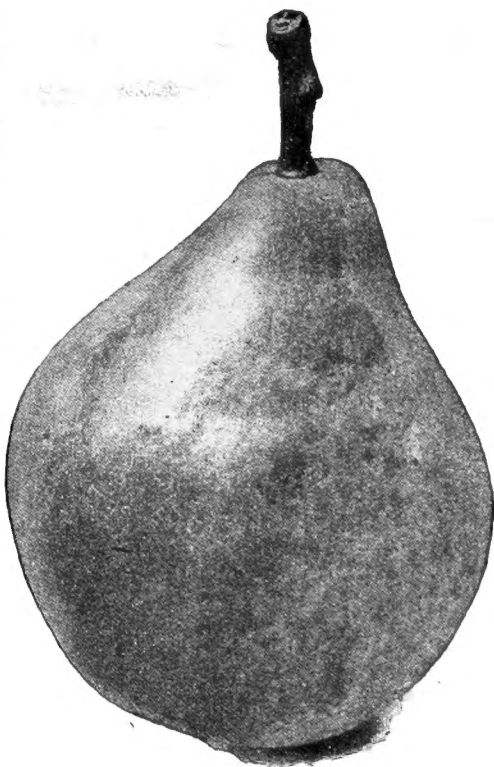
**Lincoln**—Large; yellow and red; buttery, melting, sweet and very good. September. Hardy and prolific.

\***Seckel**—Small; brownish-green with red russet; buttery; melting; juicy and delicious; of the very best quality. September. A slow growing, very hardy and healthy variety.

**Sheldon**—Large; greenish-yellow; russeted; melting; juicy, sweet and good. October.

**Rossney**—Large, yellowish, buttery, juicy, melting and very good. Hardy, vigorous and free from blight. One of our best varieties. September.

**Vermont Beauty**—Medium size, yellow and red, rich and juicy. Very good, October. Very hardy, vigorous, healthy and prolific. A splendid variety.



**Kieffer**

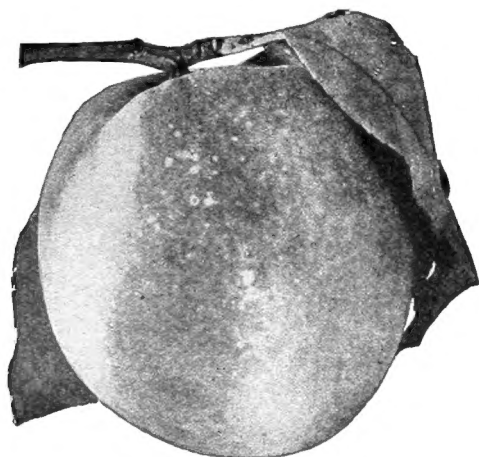
\***Wilder**—Small to medium; yellow shaded crimson; fine grained; tender and good. Vigorous and productive. August.

**Worden Seckel**—A seedling of Seckel; of similar quality, but much superior in size and color. Hardy and productive. October.

## Peaches

We have given much attention to collecting a list of the hardiest peaches and believe the list we describe cannot be excelled for hardiness. Varieties originating here in Iowa have generally been most successful. We do not claim them to be hardy like apples and plums. They may be mostly killed in a test winter and often injured but will quickly outgrow their injuries and generally bear three years out of five.

Our peach trees are budded upon the hardiest stock in existence, namely, seedlings produced from seed of the Bailey peach grown here in Linn county. Plant them about a foot deeper than they stood in the nursery, so that if the tree is ever killed back to the ground it will throw up a sprout from above where it was budded and thus renew the tree.



**Leigh.**

flesh yellow, juicy, rich and of the very best quality. Pit very small and free. September.

**Robins**—A local variety of much promise. Medium size; yellow and red free stone; flesh light yellow, sweet and good. This is the earliest variety of the list, ripening the last of July or first of August.

**Russell No. 1**—Medium size, whitish with red cheek; pit small and free. Flesh greenish-white, juicy and good. Middle of August to September. One of the very hardiest and most profitable varieties.

**Sterns**—Originated in Western Michigan. Large; round; yellow with brilliant red. Pit small and perfectly free; flesh firm, yellow and very good. A promising new variety.

**Bailey** (Friday Seedling)—Medium size; whitish with red cheek; flesh white; juicy; sweet and good. Pit very small and free. September. This variety has been grown in Iowa for over seventy years and has averaged three crops every five years.

**Banner**—A Canadian variety; medium to large; deep yellow with crimson cheek; free stone. Flesh yellow, rich, firm and good. September.

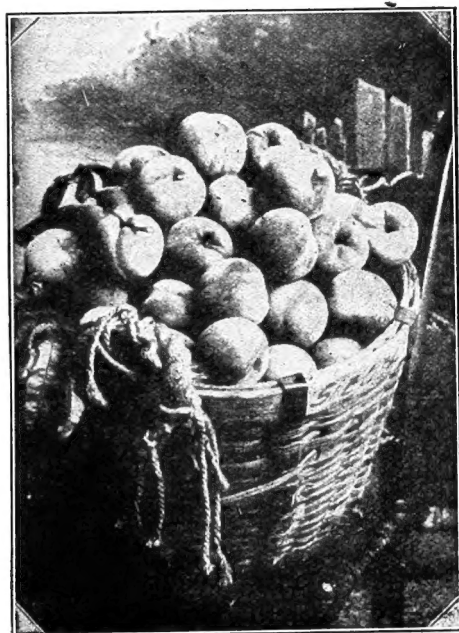
**Bokara No. 3**—Medium to large; free stone; yellow with red cheek; flesh yellow, juicy and good. September. A hardy variety from Asia.

**Champion**—Large; creamy white with red cheek; flesh white, very sweet, juicy and rich. August. One of the best and hardiest of the early varieties.

**Elberta**—Very large; yellow with red blush; free stone; flesh yellow; juicy and good. Vigorous and moderately hardy. September.

**Leigh**—Originated in Mt. Vernon, Iowa. Large; white with red blush; free stone. Flesh white, very sweet, juicy, and good. August. The original trees have produced as many as eight bushels at a crop.

**Lone Tree**—Originated in Johnson county, Iowa. Medium to large, golden yellow;



**Bailey.**

## Plums

No other fruit has a greater variety of uses, or is capable of satisfying a greater variety of tastes than the plum. It is in its native element in Iowa soil and climate, this section having been favored with many choice varieties in its primitive state.



**Surprise.**

**Varieties.** We are making this fruit a specialty and our experimental orchard is our delight. Up to the present we have planted in it about 300 varieties, most of which have been discarded. It is our aim to test all varieties which come well recommended and propagate only the best. By careful selection one may enjoy fresh plums from early July until late October.

**How Propagated.** All our plum trees are budded or grafted on native plum seedlings, which experience has proved are the only stocks which are sufficiently hardy to stand the severe winters of this climate.

**Cultivation.** If you give them your best land and as thorough and frequent cultivation as you do your cornfield or garden you will succeed. Clean cultivation is one of the best remedies for the plum curculio. Where cultivation is impracticable, poultry will destroy most of the curculio if allowed to run among the trees.

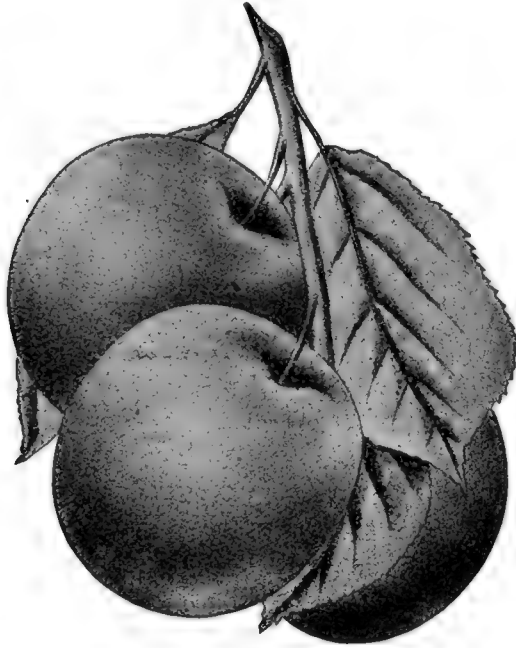
**Grouping.** We have made four groups of plums, based on their origin.



**Whitaker.**

## American Varieties

These include red and yellow plums of several species and are native to the northern part of the United States. These are the hardiest of the plums.



**Burbank.**

**Bentley**—Large to very large; oblong, very beautiful; yellow and red; free stone, very good. Last of August. Not a regular bearer. Terry is equally good for all purposes and more prolific.

**Desoto**—Our old standby. Medium to large, roundish, bright yellow and red, free stone; very good for every purpose. Last of August. Very hardy and healthy; its one fault in overbearing, thin the fruit for best results.

**Mathews**—Small, round, bright glossy crimson; seed very small, quality fair. A very late variety, keeps into October, and bears regularly. Not injured by insects and dodges the spring frosts by its late blooming.

**Miner**—An old variety, large, round, dull red; cling stone. Valuable for all purposes. September. Should be planted with other varieties to secure pollination, otherwise it may be a shy bearer.

**Moreman**—Medium, round, dark red and good. A very heavy and regular bearer. September.

**Reed**—Medium to large, round, dark red. Very thrifty and productive. September.

**Surprise**—Large, red, cling stone; rich, sugary and delicious. September. Good for all purposes. Prolific, vigorous and hardy far into the Northwest. One of the most valuable for market or home use.

**Terry**—Large to very large, purplish red; thin but tough skinned, very good. Thrifty, hardy and prolific. Many good judges consider this the best of all American plums for every purpose. September.

**Whitaker**—Large, bright red, cling stone; sweet, juicy and very good. Skin thin and peels like a scalded tomato. The best and most dependable early variety; it very rarely fails. A remarkably vigorous grower. Middle of July.

**Hawkeye, Snyder, Stoddard, Wyant**—These varieties are so inferior to Terry that we no longer recommend them.

## Japanese Group

The varieties of this numerous family which we consider worthy to be retained in the orchard are very limited. The reason we retain any of them is on account of their size, good quality and great productiveness. In point of hardiness and other characteristics of tree, none of them can be highly recommended.

**Abundance** (Sweet Botan)—Large to very large, greenish yellow with red bluish and marked suture; excellent. One of the very sweetest of fruits. A vigorous upright grower and extremely prolific.

**Burbank**—Large to very large, marbled and overspread with dull red, cling stone. August. Flesh yellow, very

sweet and agreeable. Very productive.

**First**—Large, greenish yellow with some red, very thin skin; cling stone; very sweet and good. Tree thrifty, moderately hardy and very productive. It ripens in July, at raspberry time, and is the only early plum which is thoroughly good for all purposes.

## Domestic Group



Spanish King.

This family embraces the European varieties of plums and prunes. They must be sprayed regularly to prevent the curculio and brown rot from destroying the crop. If it were not for these pests, this class of plums and prunes could be as easily and profitably produced as any of the common American varieties. Most of this group are most delicious dessert fruits, some are unexcelled for culinary use. We submit a short list of the best of this class for this section.

**Communia**—Large, roundish-oblong; dark blue, flesh yellow, juicy, sweet and very good for all purposes. September.

**French Damson**—Medium size, dark blue, almost black; free stone; flesh yellowish green. Splendid for dessert or cooking. Fruit colors long before ripe. Last of September. Very prolific, hardy and vigorous.

**German Prune**—Large, oblong, purple or blue; rich, juicy and very good. Vigorous and very productive. One of the best of the prune family.

**Horse**—Medium, dark blue, of splendid quality for cooking. One of the hardest and most reliable of the group here.

**Reine Claude** (Bavay's Green Cage)—Large oval, greenish, good. A great favorite wherever known. September. A spreading, rather slow growing tree.

**Shipper's Pride**—Very large, dark purple, and very showy. Flesh juicy, sweet and good; valuable for market. Last of August.

**Spanish King**—Large, roundish-oblong, blue; flesh yellow, juicy, sweet and very good. One of the best of this class of plums for all purposes. Hardy and vigorous. September.

**Tatze**—Large, roundish-oblong; dark blue; flesh yellow, sweet and good. Similar to Spanish King. Makes an excellent prune. September.

## Hybrid Group

From this time on this will be the most important group of plums. Plant breeders have developed the desirable characters or qualities of the other groups to near their limit, and they cannot create new ones, so their hope for the future lies in combining the good qualities of the different groups or species. The Hybrid Group is made up of varieties with such combinations of characters and therefore differ widely from the older varieties of plums.

Except the Gold, Compass and Omaha, they were all originated by Prof. Hansen of Brookings, South Dakota, one of the most scientific plant breeders, whose work is of immense value to the North and Northwest. All require thinning to get the largest size.

**Gold.** (Robinson and Botan)—Large to very large, golden yellow with some red; juicy, sweet and good. Very productive, fairly hardy and vigorous.

**Omaha**—Large to very large, coral red. Flesh yellow, firm, juicy and highly flavored. Seed small. Thrifty and productive.

**Waneta**—A cross of the large Japanese plum "Apple" and the largest of our plums, "Terry." The following is from Prof. Hansen's description "Size at Brookings in 1912 two inches in diameter weight two ounces. Good red color, skin free from acidity, flavor delicious." We have small 1 year trees only. Write for sizes and prices.

### CHERRY PLUMS

All hybrids of Western Sand Cherry and cultivated plums. Like the sand cherry parent they all bear very young, often at one year old, and are almost completely covered with fruit which hangs to the tree until pulled off. Size and quality of the fruit resembles the plum parent. All are very thrifty and vigorous but grow more or less crooked and one-sided.

**Compass**—The first of the cherry plums to be produced. A cross of Miner plum and Sand cherry. Small, purplish-red with large pit and yellow flesh; very good for cooking.

**Oyata**—A cross of Sand Cherry and Burbank's large Gold plum. Fruit about 1 3-16 inch in diameter, dark purplish-red with blue bloom; pit very small, flesh green, rich and sweet. One of the earliest to ripen. A customer at Sidnaw, Michigan, to whom we sent Oyata the spring of 1913 wrote Sept. 9th, 1914. "The ten Oyata trees all bore fruit this summer and the fruit ripened before September 1st. Please let me know at what price you can ship 75 early next spring. I enclose picture of one of the trees that will be of interest to you". (Photo enclosed of a tree set out in April, 1913 and bearing 93 ripe plums Sept. 1st, 1914.)

**Sapa**—A cross of the Sand Cherry and Burbank's large purple fleshed plum called Sultan. Fruit slightly larger than Oyata. Skin, flesh and juice very dark purple-red which makes this entirely unlike any other fruit grown here. Sapa makes very rich purple sauce of splendid quality and does not cook sour. Everyone is delighted with it. Nearly every customer to whom we sold trees two years ago has fruited it and been back after more. Not as vigorous as Oyata and two weeks later.

**Wachampa**—Of the same parentage as Sapa. Fruit not quite as large, but uniform in size; purplish with light red flesh and very small pit. Very sweet and good and ripens with Sapa. A remarkably vigorous and better shaped tree.

**Ezaptan**—Also of same parentage as Sapa and not quite as large. Dark purple, flesh purple, of delicious quality, seed very small. The best of the cherry plums and one of the best of all plums for cooking. Entirely free from acidity or astringency and has a pleasant, characteristic flavor. August.

**Sansoto**—A cross of Sand Cherry and De Soto plum. Fruit round, about the size of the De Soto plum, almost black when fully ripe. Flesh yellowish green, sprightly pleasant, skin thin; pit very small, cling. August.

**Cheresoto**—Same parentage as Sansoto and very much the same except in shape. Cheresoto is long and has a small point at the apex. August.

### APRICOT PLUMS

These are hybrids of the large flat Chinese Apricot plum, *Prunus Simoni* and our native plums. They are all hardy, remarkably vigorous and symmetrical growers, and productive. The fruit of all these is well colored, distinctly flat in shape, very fragrant, so firm that it will keep several days or stand a great deal of shipping, and of such splendid quality for cooking that they are sure to be in great demand as soon as known.

**Hanska**—Large, bright red with heavy bloom; flesh yellow, very firm and fragrant, pit very small, semi-cling. The apricot flavor is brought out to perfection in cooking. August.

**Kaga**—Very similar to Hanska in every respect but ten to fifteen days earlier.

**Inkpa**—Also similar to Hanska in fruit, but earlier. The tree is more spreading than any others of the group.

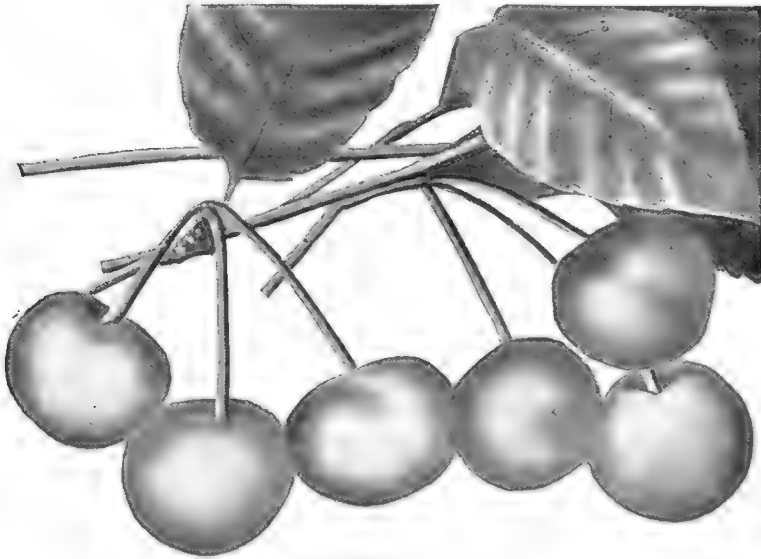
**Toka**—We consider this the best of the Apricot plums. The fruit is slightly larger than Hanska, the flesh a deeper yellow and richer flavor. "The Toka plums you sent me I was more than pleased with; their rich mahogany color should make them a great seller on the market, and we cooked some of them as you suggested and found them the finest thing I ever saw in the plum line." F. L. Colby, Enfield, New Hampshire.

"Highest quality of any plum ever fruited at this station. Seemingly a great acquisition." Supt. Montevideo Trial Station, Minn. Horticultural Report, 1913.



## Cherries

Cherry trees thrive on almost any soil which is well drained but not where water stands about the roots. Our stock of cherry trees for this year is especially fine. We know they will give far better results than any shipped in stock. The following is a list of best out of many varieties:



**Early Richmond.**

**Baldwin**—Very large; dark red; round, and good. Tree vigorous and healthy; very resistant to leaf diseases. A promising new variety.

**Dyehouse**—Large, round; red, and good. Is slightly earlier than Richmond and much like it.

**English Morello**—Almost identical with Wragg. One of the best of this class of cherries.

**Homer**—Fruit large, dark red, and good; ripens about the same time as Richmond. This is claimed to be the very hardiest of the cherries and has been grown in Minnesota for many years where other varieties are too tender.

**Montmorency**—Large to very large, round; red; ten days later than Richmond. Flesh firm, meaty, much superior to Richmond in quality. Tree very hardy and productive. One of the most profitable varieties to plant.

**Osthelm**—Large; dark red, almost black; tender, juicy and mild, almost sweet; very good. A hardy Russian variety; the best of the Morellos.

**Richmond (Early Richmond)**—The standard early variety Red, round and juicy.

First of June. Valuable for market or home use. Tree hardy, and a regular bearer.

**Timme**—One of the most promising new cherries. Fruit large, rich and meaty; berry hardy and prolific. Ripens with Richmond but is more productive. Pronounced by some to be the best variety for eating off the tree or for canning.

**Wragg**—Large; handsome, dark red; good. Early July. Should not be picked until dark colored. Hardy and productive.

## Sweet Varieties

**Yellow Glass (Double Glass)**—Fruit large, roundish, heart-shaped; bright yellow; juicy, very sweet and good; one never tires of eating them. Tree very vigorous; certainly the hardiest of sweet cherries. Imported by Professor Budd from Silesia in 1882.

**Schlethan**—Fruit large, heart-shaped, deep red becoming dark red or black. Flesh dark red, very firm, moderately juicy, sweet and good. At Ames it proved to be one of the hardiest sweet cherries.

## Grapes

There is not a yard so small but there is room for from one to a dozen grape vines. They may be trained on a building, arbor or fence if necessary, and they will richly reward the planter with an abundance of the most healthful fruit. The great quantity of grapes now used for making grape juice makes it almost impossible to have an over-production of this fruit. Any well drained land will produce grapes.

Plant them in rows, 6 to 8 feet or more apart. Dig holes so as not to have to fold the roots in planting and cut back the top to two buds. Prune off most of the new growth each fall and lay down the vines and cover with dirt for winter protection in the North.

**Agawam**—Red; large to very large, aromatic, sweet and good. Very vigorous and productive. Needs winter protection.

**Beta**—A small to medium sized black grape, quite acid but of good quality. Very early, prolific and healthy. It is valuable chiefly for its hardiness. It is hardy without protection far into Minnesota, and on this account it is especially valuable for arbors where the large varieties are a little too tender.

**Brighton**—Red; large, sweet and delicious. Should be planted with other varieties to secure pollination. Requires protection.

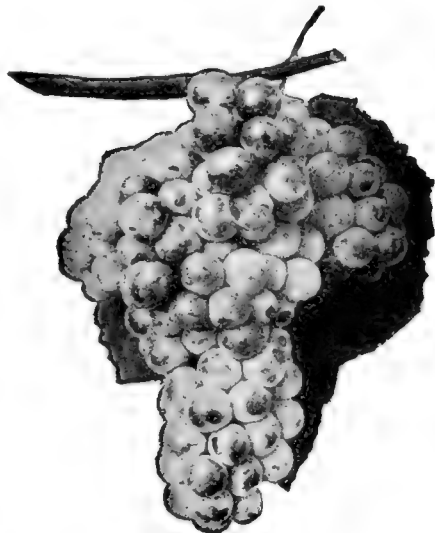
**Campbell's Early**—Black; very sweet, juicy and good. This variety does not seem to be adapted to this part of the country. In our vineyard the vines have not paid for themselves and do not promise to do so.

**Concord**—Black. The well known standard variety for all purposes. Size medium; succeeds wherever grapes are known.

**Delaware**—Light red; bunch and berry small and compact; very sweet and highly flavored. Best in quality of all American grapes. Needs winter protection for good results.



Worden



Niagara.

**Diamond** (Moore's Diamond)—Large, round and greenish-white; sweet, juicy and very good. Healthy, vigorous and prolific and very hardy. One of the best of the white varieties.

**Moore's Early**—Black; berries large to very large, round; very sweet and good. Two to three weeks earlier than Concord. This variety grows in favor every year; one of the most profitable for market and should be in every garden.

**Niagara**—White; large to very large; melting, sweet, with a peculiar, agreeable flavor. Hardy and productive. The best and most satisfactory of white grapes for all purposes.

**Pocklington**—White; very large and showy; sweet and good. Vigorous and hardy. Ripens with Concord.

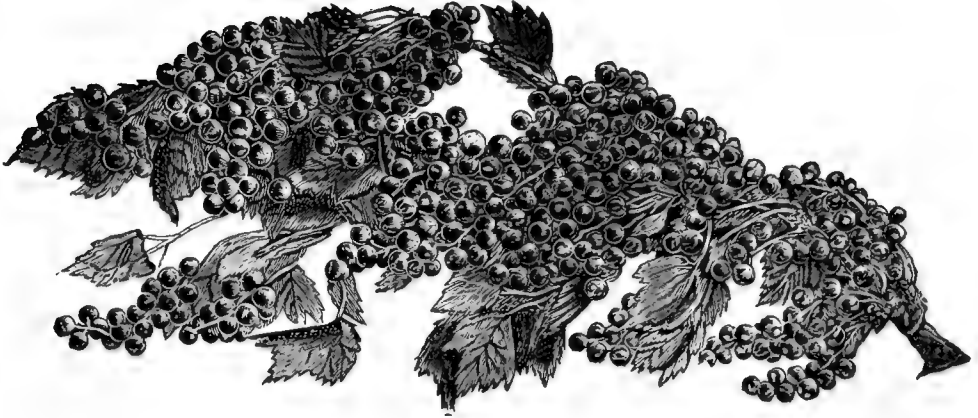
**Regal**—Large, dark red and juicy. Bunches large and compact. One of the hardiest red grapes and very prolific. One year vines only.

**Woodruff Red** (Woodruff)—Large to very large; very sweet and good. A little earlier than Concord. Very vigorous, hardy and healthy.

**Worden**—Black; berry and bunch large and compact. Sweeter, better, and a little earlier than Concord. A strong grower, heavy yielder, healthy and hardy. The best and most satisfactory variety to plant for home use or market.

**Wyoming Red**—Light red; bunch and berry small, tender, sweet and good. Vigorous, hardy, and the earliest red grape.

## Currants



Currants do best on good, rich, moist soil and should be well manured and cultivated. Plant four to six feet apart and prune closely at the time of setting. Keep the old wood pruned out every year. The currant worm can be destroyed by a timely use of any of the arsenicals, or by white hellebore, if the fruit is too near maturity to use poisons. Currants have been in great demand the last few years and without doubt they are one of the most profitable fruits of all to grow. They can be left on the bushes two weeks after they are first ready for picking without injury.

**Cherry**—Berries very large; bright red mild and good. An early variety, well adapted for market.

**Fay's (Fay's Prolific)**—Berries very large; bright red; mild and good. Another good market variety.

**London Market**—Berries large; bright red firm and good. Clusters compact and very long. Vigorous and hardy; very healthy. One of the best for market.

**Perfection**—A cross between Fay's and White Grape, retaining the valuable characteristics of both; beautiful bright red, as large as Fay's holding its size to the end of the bunch. Easy to pick, very prolific, mild and of very good quality. A valuable new variety.

**Pomona**—Berries large; bright red; very mild and good. One of the most productive varieties known.

**Victoria**—A standard variety; very large; bright red, mild and good. Very productive. A splendid variety.

**White Grape**—Berries very large; white sweet and very mild; excellent. One of the very best currants of all.

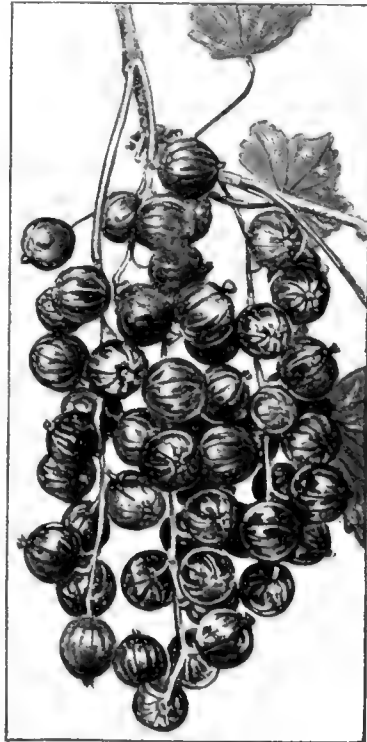
## Gooseberries

All we have said about currants is also applicable to gooseberries. In addition to the arsenical, they should be sprayed with a fungicide to prevent mildew in unfavorable seasons.

**Downing**—Large to very large, round; green; juicy and good. A very satisfactory variety.

**Champion (Oregon Champion)**—Large, roundish, greenish-yellow, very good. One of the most productive of all. Entirely free from mildew. We consider this our leading variety; the very best for all purposes.

**Houghton**—Medium, roundish, pale red; very good. Enormously productive. An old standby.



Fay's Currant.

# Raspberries

A common plan for laying out a raspberry plantation is to plant in rows six to eight feet apart from two to three feet or more in the row; but recent experience has convinced us that there is a better way. It is to plant in hedge rows eight to ten feet apart and twelve to eighteen inches apart in the row. The dense hedge row smothers out all weeds and renders cultivation easier and quicker. The space between the rows should be frequently and well cultivated.

It is a well known fact that raspberries are always finer, larger and sweeter if grown partially in the shade; the hedge row furnishes this condition. It also protects the young canes from being twisted and broken by the wind. The result is more canes, finer fruit and easier and quicker cultivation. Give this plan a trial and you will be convinced of its advantage over the old way.

## Black Varieties

**Cumberland**—Very large; firm, sweet and very good; splendid for any purpose. Very vigorous, healthy and hardy. A little earlier than Gregg; one of the best varieties.

**Gregg**—Very large and productive; sweet and good, very firm. One of the best shippers. Eight to ten days later than Older.

**Kansas**—Large, early, moderately firm; very good. Enormously productive; withstands drought splendidly. Many give it first place for home use or market.

**Older**—Large, roundish; very early, rich and good. A great drought resister. Ripens perfectly; seeds small. Originated in Iowa, and is one of the hardiest on the list; a fine variety for home use or local market; not firm enough for long shipments.

**Plum Farmer**—Large, sweet and juicy, but firm; early and very productive. Splendid for every purpose. A new and promising variety.

## Purple Cap Varieties

**Cardinal**—Large, dark red, firm, with an agreeable rich flavor which develops to perfection in cooking. There is no better variety for canning or jam; it ripens rather late. The canes are upright, very strong and vigorous, with few thorns, and very free from diseases. One of the hardiest and most productive of all raspberries.

**Haymaker**—A rival of the Cardinal; large, dark red, firm and excellent. Very vigorous and hardy. Often declared to be the most profitable raspberry on earth.

## Red Varieties

These multiply by suckers and sprout all over the ground near them, so they must be confined to narrow rows by running the plow through them frequently during the growing season. With proper care and cultivation they excel all other raspberries in quality and equal them in productiveness.

**Colorado**, **Ironclad**—Medium to large, bright red, sweet and delicious, but too soft for market use. Canes are very healthy, vigorous and hardy. A splendid variety for home use. Ripens with King.

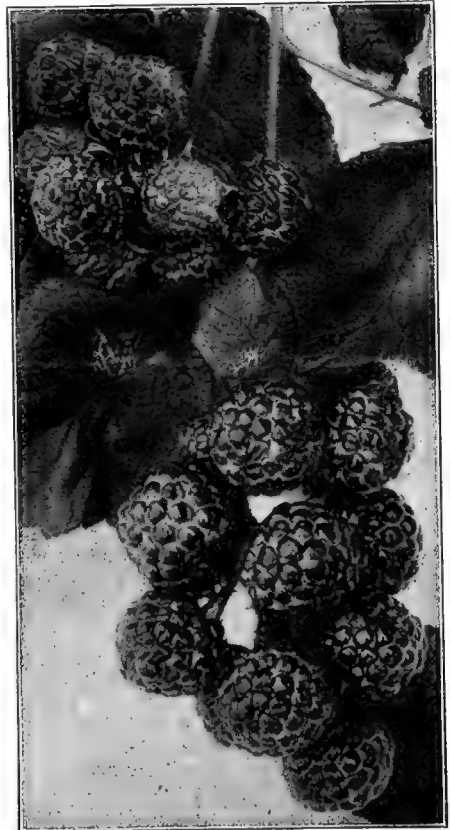
**Eaton**—Bright red, very large, firm and of the best quality.

**King**—Generally considered the best early red raspberry. Berries large, bright red and moderately firm. It ripens with the earliest black variety. Canes are hardy, productive and vigorous.

**London**—Very large, beautiful dark crimson, splendid quality and very productive. It endures our coldest winters without protection. One of the very best of the red raspberries.

**Ohta**—Large, red, quite firm, of good quality, and very prolific. Hardy far north without protection. One of Prof. Hansen's productions.

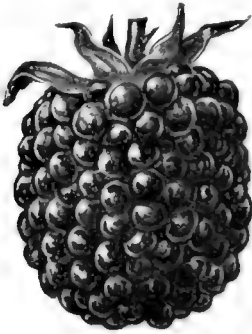
**Sunbeam**—Red, medium, of good quality and very valuable where hardiness is first to be considered as it is hardy to Manitoba. Another of Prof. Hansen's productions.



Cumberland.

## Blackberries

Practically the same general directions apply as for the raspberries. Our plants are root-cutting plants and are worth tenfold more to the fruit grower than sucker plants from old, exhausted patches; be sure you get the genuine nursery propagated plants and you will succeed. The blackberry is a stronger bush than the raspberry and should be planted in rows eight or ten feet apart, and from two to three feet apart in the row; otherwise, its culture is the same as for the raspberry.



**Improved Snyder**—For some time we have been working up a stock of a superior strain of this variety which is in every way superior to the common Snyder. Several years' experience with this new strain leads us to believe them to be hardier, more vigorous and to produce more and better fruit than the common Snyder. The canes are extremely hardy and very productive, the fruit is medium to large in size, contains no hard, sour core, and is sweet and juicy, but firm. We have shipped them over 500 miles in good condition.

## Dewberries

Great care and peculiar treatment are necessary for successful dewberry growing. They do well in high, well drained clay soil, but can be grown with good success on almost any good soil. Plant in rows seven or eight feet apart and four to five feet in the row. Begin pruning by pinching out the ends of the canes as soon as they reach a length of three feet, and of the laterals when they reach two feet. In the fall prune away all but six of the best canes to each hill and these canes to a length of four to five feet. Press them closely to the ground lengthwise of the row and cover with three inches of forest leaves or by throwing a light furrow upon them. Uncover in spring when all danger of freezing is past and tie to a wire trellis.

**Lucretia**—Claimed to be the best of the blackberry family and as productive as any. The berries are far larger and incomparably better than any blackberry, and of unequalled excellence; soft, sweet

and luscious throughout; of brightest glossy color. The Lucretia dewberry has received the indorsement and praise from the best horticulturists in the country.

## Asparagus

Asparagus is one of the earliest and finest of spring vegetables; so easy of culture, profitable and wholesome, that every family garden should have a liberal supply.

Choose well drained, fertile soil, work it up fine and deep, and place the plants in rows four feet apart and eight inches apart in the rows; spread out the roots in a trench made deep enough to permit their crowns to be covered with three or four inches of mellow soil; give the rows a liberal dressing of well rotted manure at least once a year, and fifteen pounds of salt per rod length early every spring. Do no cutting the first season.



ASPARAGUS.

**Columbian Mammoth White**—A distinct variety of strong, vigorous growth, producing very large white shoots that in favorable weather remain white until two or three inches high, or as long as fit for use. Market gardeners and those growing for canning will find this a profitable variety.

**Conover's Colossal**—A mammoth variety of vigorous growth; tender and excellent quality. Sends up fifteen or twenty very large sprouts each year.

### Juneberries

**Improved Dwarf**—This is one of our most wholesome fruits. A delicious fruit to eat out of hand, or for pies and canning. Perfectly hardy and never fails to bear. Fruit resembles the blueberry and is borne in attractive clusters. Should be in every garden.

### Rhubarb or Pie Plant

**Linnaeus**—Large, early, tender and fine.

**Victoria**—A large variety of excellent quality.

# Strawberries

No one owning a home, or for that matter, one who is renting for a term of years, can put a little money to better use than to buy three or four hundred strawberry plants. Nothing will bring quicker and greater satisfaction to the planter than a well kept strawberry bed.

The best time to plant strawberries is in early spring, and on fertile, new soil or old land brought to a high state of cultivation. If horses are to be used in cultivation, plant in rows three and one-half to four feet apart, and one to two feet in the row. Pinch off the blossoms the first season of the spring bearing plants and until about August 1st of the fall bearing kinds. This allows the plants to develop greater strength. About November 1st cover with straw and in the spring rake most of it between the rows, leaving just enough to keep the berries off the soil. Plant a new bed every year and you will always have fruit.

Our plants are strictly nursery grown and will give far better satisfaction than can possibly be obtained with plants taken from an old fruiting bed; such plants are not worth the digging. All plants dug fresh as they are shipped and are sent by mail or express.



Senator Dunlap.

## Spring Bearing Variety

**Senator Dunlap**—Out of a long list of more than thirty spring bearing varieties which we used to catalog, we now retain but one, the Senator Dunlap; a product of the Mississippi Valley and especially adapted to it. Probably no other variety of fruit ever introduced here has given as universal satisfaction, as this one. Every claim made for it has been more than met. Some of its strong points are:

1.—A clean, healthy and vigorous plant; capable of resisting intense cold and severe drought, and making an abundance of good and strong plants when almost every other variety fails.

2.—A long blooming season, with an abundance of pollen, making it one of the best self-fertilizers, and also the best for fertilizing pistillate varieties.

3.—A long fruiting season—coming in with the medium early and holding out when most others are gone—developing and ripening all its berries.

4.—Uniformly large, well shaped, dark bright red glossy berries with a very large, bright green calyx. Berries of the finest quality and flavor.

5.—A good keeper. Its long keeping qualities and attractive appearance make it more saleable than most others.

6.—A good canner, retaining its bright red color in the cans.

We obtained our breeding stock direct from the introducer. Our plants are pure, grown on strong ground and with the best of care.

## Fall Bearing Varieties

We admit we had but little faith in the fall bearing strawberries when they were first introduced; but having had several years experience with them we now consider them the greatest things introduced among the small fruits for a long time.

They produce a crop in the spring the same as the Dunlap but six to ten days earlier, and then begin bearing again about July 15th and continue until freezing weather. They are highly bred plants and require high culture for the best results, but if they have it, will produce wonderful results.

**Americus**—Self fertile. Medium to large, bright light red, very solid and has the splendid flavor of the Wild Strawberry. The fruit is borne above the leaves on stout stems. The plants are very vigorous, deep rooted, healthy and hardy. New plants bear as soon as formed.

**Progressive**—Self fertile. Medium to very large, about the shape, color and quality of Dunlap, and the plants resemble them. The originator of these varieties says this one is the best of all. Eight to ten days earlier than Dunlap in spring.



## Evergreens

The following species are the best kind of evergreens to plant in this state for shelter belts and ornaments. There is nothing which will add more to the value of a farm or more comfort to its occupants than a well arranged plantation of evergreens. Their shade is cool and refreshing in summer, and a belt of them is the greatest barrier against winter blasts that can be provided.

Our evergreens have been two or three times transplanted; are heavily rooted, stocky and thrifty plants. Failure with evergreens is usually due to careless handling, planting or cultivation. Any soil that will grow corn or garden vegetables is suitable for evergreens.

### DIRECTIONS FOR PLANTING AND CARING FOR EVERGREENS.

**Handling.** Evergreen roots must always be very carefully protected from the sun and dry air. If they ever become thoroughly dried, the tree, unlike other trees, can never be revived. The roots should be dipped in a paste of mud before placing in the hole.

**Planting.** Dig holes large, so that the trees are not crowded, using the top soil in the bottom of the hole, and arranging the roots carefully, working the fine soil around and among them with your hand and shaking the tree occasionally as the filling is going on, to settle the soil. When the roots are well covered, hold the tree upright, treading the soil very firmly around and over them with the feet. When this is done you have a basin or a hole around the tree that will hold half a pail of water; fill this basin with water and in half an hour or so, after the water has soaked away, fill the basin with good, mellow soil without much tramping.

**Watering.** The month of August is the critical period for newly planted evergreens, for during this month, unlike deciduous trees evergreens make a new root growth which requires moisture. If the rains have not been plentiful the trees should be watered. Make a basin around each tree by pulling away the soil with a hoe and water as above. If the season is very hot and dry, this watering should be commenced the latter part of July and continued through the period of drouth.

**Cultivation.** Thorough cultivation is very essential to the growth of vegetation of all kinds and nothing appreciates it more than evergreens. They should be cultivated at least once a week up to August 1, when a good mulching of partially rotted hay or straw may be given. Care should be taken not to use green manure as it is detrimental.

**Seedlings.** The largest sizes of seedlings may be planted and treated as above; smaller sizes should be planted in well prepared beds with a dibble and shaded the first season.

**Windbreaks.** Plant spruces, firs and arborvitae in single rows, four to six feet apart; double rows, ten feet apart; Scotch and bull pines, single row, eight feet and double row ten to twelve feet; white pine, single row, eight feet double row, twelve to fourteen feet.

**Hedges.** Arborvitae, ten to eighteen inches, fifteen inches apart; eighteen to twenty-four inches, eighteen inches apart; two feet and larger, two feet apart. Spruce and cedar, two to four feet apart, according to size.

## PINES

**White Pine** (*Pinus strobus*)—One of the best, largest and longest lived Evergreens. The foliage is warm light green, often with a bluish tinge. The leaves are in fives, three to four inches long, very soft and delicately fragrant. After getting well started it is the most rapid grower of all



White pine.

Evergreens and adapts itself to a great variety of soils. It is one of the best for shelter, and the best large growing Evergreen to plant near buildings or along streets to be trimmed up for shade; few trees unite so many elements of beauty and utility as our native White Pine.

**Bull Pine or Western Yellow Pine** (*Pinus ponderosa*)—A heavy wooded pine and a rapid grower, forming a tree of great size. Its very long coarse foliage is a beautiful light green and stands out squarely from the limbs, thus making it very valuable for landscape or wind-breaks. This tree requires the best of care in transplanting, but when once started, thrives in almost any location, either wet or very dry. Undoubtedly this is the best pine for Western Iowa and beyond.

**Scotch Pine** (*Pinus sylvestris*)—A rapid growing, hardy variety with stout erect

shoots and green foliage. Good for shelter or landscape planting. It is one of the hardiest Evergreens and adapts itself rapidly to the trying climate of the North and Northwest. It also thrives in the Southwest or West. It is rather short lived and cannot be depended upon for more than twenty-five or thirty years.

**Mugho or Dwarf Mountain Pine** (*Pinus Mugho*)—This unique Alpine species forms a very compact, dark green, dome-shaped bush, broader than high. It is very valuable for planting on lawns, terrace banks, hillsides, rockeries, etc.

**Red Pine or Norway Pine** (*Pinus resinosa*)—One of the finest of the Pines but not generally known. It grows almost as rapidly as the White Pine and makes a very pretty tree. The leaves are very numerous, about six inches long and a bright dark green.

## Spruces

**American White Spruce** (*Picea alba*)—A pyramidal tree of dense growth, with light silvery green foliage. A longer lived, more compact, and in all respects a better tree than Norway Spruce. One of the best for general use and very fine for lawn planting.

**Black Hills Spruce**—A strain of the White Spruce native to the Black Hills. Slower growing, more dense and better colored than White Spruce. Some specimens rival Colorado Blue Spruce in color. One of the hardiest and easiest to transplant of all the Spruces.

**Colorado Blue Spruce or Silver Spruce** (*Picea pungens*)—This Evergreen grows over a greater range of territory than any other member of the Evergreen family. Its home is in the clefts and recesses of the Rocky Mountains, where it grows on barren soils, exposed to the roughest weather. It heads the family of Spruces for hardiness and longevity and is the most ornamental of the Evergreen family. Seedlings vary from dark green to silvery blue; no description can do it justice, it has to be seen to be appreciated.

**Koster's Grafted Blue Spruce**—these are uniform in color and finest blue green it is possible to obtain.

**Norway Spruce** (*Abies excelsa*)—A very popular variety from Europe. It has been more extensively planted in this country than any other Evergreen. It is a rapid grower, easy to transplant, and adapted to a great variety of soils, but rather short lived.

## Arborvitae

**American Arborvitae** (*Thuja occidentalis*)—One of the finest Evergreens for ornamental screens or hedges. It grows rapidly, soon forming the most beautiful hedge. It bears trimming to any extent desired, and plants which have been rendered compact by clipping retain the fresh green of their leaves in winter better than those with more open foliage. For an ornamental hedge, plants may be

set 15 to 24 inches apart; for a screen to grow tall, plant about 2 to 3 feet apart.

**Siberian Arborvitae**—One of the hardiest and most compact growing Evergreens. It grows conical in shape and is very fine for specimens, groups or shearing. Foliage is deep, rich green.

**George Peabody Arborvitae**—One of the most beautiful members of the



COLORADO BLUE SPRUCE.

Aborvitae group. A vigorous, compact grower with beautiful golden green foliage. Hardy and valuable to contrast with other colors.

**Pyramidal Arborvitae**—A very compact hardy Arborvitae which forms an elegant and very slender shaft of dark green. Superior to, and much hardier than, Irish Juniper. Much planted in cemeteries and is one of the most satisfactory of the ornamental Evergreens, with fine, bright green foliage, silvery underneath. Hardy, but requires moisture.

## Firs

**Balsam Fir** (*Abies Balsamea*)—A well-known, popular tree; very handsome while young, assuming an upright, conical form. Leaves dark green above, silvery beneath; retains its color throughout the winter; grows rapidly and is desirable in every way, but

should be planted where there is plenty of moisture.

**Concolor Fir or White or Silver Fir** (*Abies concolor*)—This Evergreen is of the rarest beauty; its beautiful silvery green foliage is the same the year round. It is a good grower and makes a large tree. It does best where somewhat protected from severe Southwest or West winds and sun.

## Junipers

**Virginia Juniper** (Red Cedar)—A well-known American tree which varies much in habit and color of foliage. It succeeds well on the Western plains and dry, sandy soils where other Evergreens fail. Very desirable for ornamental purposes, windbreaks and hedges.

**Prostrate Juniper** (*Juniperus Sabina*)—A creeping cedar which is useful in landscape work where a bush rather than a tall tree is wanted.

## Shade and Ornamental Trees

We can furnish a limited number of fine trees larger than are quoted of most kinds. If interested in these, send for prices.

**American Ash**—One of the most reliable of our native trees. It resists drought remarkably well and is not subject to injury by insects. A very thrifty grower, and worthy of more general planting.

**Bechtel's Double Flowering Crab**—A wild crab which produces masses of double rose-like flowers of a delicate pink color, and most delightful fragrance. Blooms while quite young and is as hardy as our common wild crab.

**Black Walnut**—One of the most rapid growing of our native nut trees. A beautiful spreading tree, valuable for shade, nuts and lumber. Our transplants are easy to transplant.

**Bole's Poplar**—A strictly upright growing tree like the Lombardy Poplar but is hardier. Leaves silvery underneath and dark smooth and light green.

**Bur Oak**—One of the very best of our native trees. Not difficult to transplant when nursery grown, and not as slow growing as most people think. In sizes up to 4 to 5 feet.

**Carolina Poplar**—A pyramidal robust grower with glossy, serrated, bright green leaves; the most rapid grower of all trees. Valuable for quick results. Does not produce seeds or sprouts. Smoke and soot do not injure it. Perfectly hardy, and fine for shade.

**Catalpa Speciosa** (Hardy Catalpa). A very rapid growing, hardy tree, with large tropical appearing foliage and large conspicuous bunches of blossoms in spring, followed by long bean-like pods. Desirable for shade and street trees.

**Cestena** (Purple Leaved Plum). A cross of the Sand Cherry and purple leaved plum *Prunus Pissardi*. A beautiful, hardy, ornamental shrub with rich purple-red leaves; in every way able to fill

the place of the Purple Leaved Plum which is too tender for planting here. This is not a fruit tree and is for ornamental planting only.

**European White Birch**—A rapid growing shade tree of beautiful form. Very desirable for street or lawn planting. By the time the tree is five or six years old the bark on the trunk and larger



Concolor Fir.



**Catalpa Trees.**

branches becomes a beautiful silvery white color. Entirely hardy in all parts of the Northwest. Makes elegant shade.

**Ginkgo or Maidenhair**—An ornamental tree, native of Japan. A very handsome, strange and striking tree, combining some of the characteristics of the Evergreens and deciduous trees. It is of medium height, fairly rapid in growth, and hardy. Its foliage resembles the Maidenhair Fern, hence its name. A rare and interesting tree.

**Hackberry**—A native tree which should be more planted. Its branches stand out horizontally and rarely split down. It is hardy, very rapid growing, thrives in all soils and is free from insect pests.

**Horse Chestnut**—A very popular tree for street or lawn planting. Hardy. Covered in early summer with magnificent spikes of flowers.

**Laurel Leaved Willow**—A hardy, broad leaved willow with a symmetrical round top, leaves broad, large, very dark, glossy green and of striking appearance. The most ornamental of the willows. Very hardy and thrifty.

**Linden (Basswood)**. A very graceful and beautiful tree for planting on the lawn. Its leaves are moved with the least breath of air and show the white surface underneath. Its blossoms are delightfully fragrant and the busy bee delights in their sweetness.

**May Day Tree. (Prunus padus)**. A very rapid growing, spreading tree, bearing great masses of white flowers in racemes. The very earliest tree to leaf

out and bloom. Must be planted very early.

**Mountain Ash, Oak-Leaved**—A handsome and hardy variety, with deeply lobed leaves; distinct and fine. Covered in autumn with bright scarlet berries.

**Norway Maple**—A handsome tree of rapid growth forming a wide, round head of spreading branches, with broad, dark green leaves. Strong, compact, and very vigorous. One of the best for street, park or lawn.

**Pin Oak**—This is considered the most beautiful of all the oaks, and is certainly the most popular for street or park planting. As the tree grows the branches droop until the lower ones touch the ground, giving it a peculiar ovate outline. The leaves are deep green, glossy and finely divided, changing to orange and scarlet in the fall. The avenues of Pin Oaks in Fairmont Park, Philadelphia, are greatly admired.

**Purple Norway Maple**—The gleaming red and purple tints of its young leaves and shoots contrast brightly with the delicate green of spring. At maturity they are purplish green; in autumn, tints and shades of gold.

**Russian Olive**—The only real hardy deciduous tree with real silvery foliage which thrives here. It is very valuable for landscape work to contrast with the green of other trees. Its blossoms are extremely fragrant; a small sprig will perfume an entire house. It attains only medium size and bears heavy pruning; remarkably well.

**Soft Maple**—A splendid, rapid growing tree which thrives almost anywhere and makes fine shade.

**Sugar or Hard Maple**—One of the most beautiful shade or ornamental trees; when given plenty of room it forms a fine, round, dense head. In autumn its foliage presents varying and very beautiful colors as cold weather approaches, often becoming gorgeous.

**Sycamore American (Platanus occidentalis)**. A very rapid growing, spreading native tree; always clean and healthy. One of the most desirable among our native trees for shade and street planting.

**Walnut, White or Butternut**—A native species valuable for nuts and lumber. Not difficult to transplant.

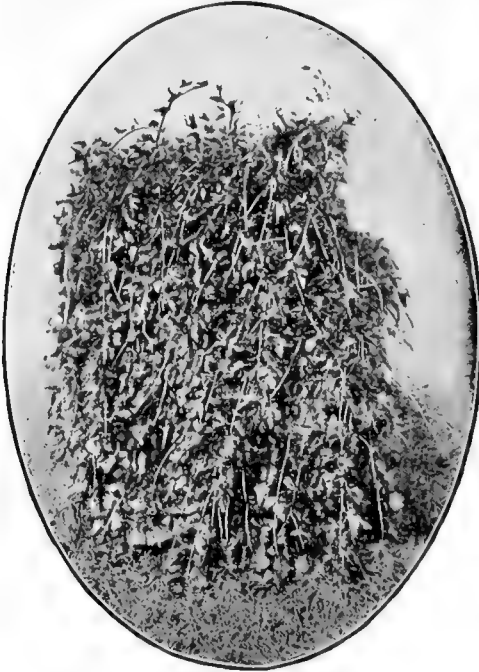
**White or American Elm**—One of the best of shade or street trees. It thrives in almost any soil, stands smoke and dirt well, and makes a large spreading tree.

**Willow, Russian Golden**—A variety with bright yellow bark and very fine drooping branches. Very ornamental the year round.

## Weeping Trees

**Birch, Cut-leaved Weeping**—Unquestionably one of the most popular of all the weeping or pendulous trees. Its tall, slender, yet vigorous growth, graceful drooping branches, white bark and deli-

cately cut foliage present a combination of attractive characteristics rarely met with in a single tree. Entirely hardy, perfect, full grown specimens are seen in Minnesota where the mercury drops to 30 or 40 degrees below zero.



**Tea's Weeping Mulberry.**

**Camperdown Weeping Elm**—This forms one of the most picturesque drooping trees. It is of rank growth, the shoots often making a zigzag growth outward and downward of several feet in a single season. The leaves are large, dark green and glossy, and cover the tree.

**Tea's Weeping Mulberry**—One of the hardiest and most vigorous of the weeping trees. It forms a perfect umbrella-shaped head, with long, sweeping branches which reach to the ground. Produces fruit the same as Russian Mulberry.

**Weeping Mountain Ash**—A very hardy pendulous form of the European Mountain Ash which makes a conspicuous lawn tree, should be pruned to make it branch symmetrically.

## Ornamental Shrubs

### LILACS

Nothing is more beautiful than a clump, hedge or screen of these, and they should go into every border. In many country dooryards the neglected lilacs continue to bloom with the fragrance and beauty that is unsurpassed by any other shrub.

**Common Purple**—The old fashioned kind.

**Common White.**

**Persian Lilac**—A late blooming variety with slender branches and narrow leaves. Flowers pale lilac, very fragrant and in large panicles. A low growing shrub.

### BUDDED VARIETIES

**Alphonse Laval**—Large panicles of double violet-blue flowers.

**Belle de Nancy**—Double white flowers that are tinged with purple.

**Frau Dammann**—One of the best; a free bloomer with medium sized white flowers, borne in large panicles.

**Mme. Abel Chatenay**—Pure white flowers in compact panicles.

**President Grevy**—The individual flowers are very large and double, a beautiful blue in color. The panicles are larger than those of any other variety.

**Ludwig Spaeth**—The single flowers are very dark purple, and distinct from other kinds.

**Senateur Volland**—A good variety with double rose-red flowers.

### Spireas

Low growing shrubs well adapted for hedges, shrubberies or single specimens on the lawn. They grow easily in almost any moderately moist soil and with very little care or attention.

**Spirea Anthony Waterer**—This makes an excellent dwarf hedge about 2 feet high if not pruned. It is smooth and very attractive when in flower. Plant 15 inches apart.

**Spirea Van Houttei**—A good smooth hedge plant becoming 5 or 6 feet high if not pruned. In the spring it is a solid bank of white. Plant 15 to 18 inches apart.

**Osage Orange**—A very thorny bush or small tree if uncut. Not hardy in Central Iowa. Plant 12 to 18 inches apart.

### Other Shrubs

**Berberis Thunbergii**—A perfectly hardy Japanese form which is unequalled for low hedges. Produces an abundance of small flowers in May and is all aglow with scarlet leaves and berries in the fall.

**Cut Leaved or Fern Leaved Sumac.** (*Rhus typhina lacinata*) A variety of sumac with fern-like leaves and brilliant scarlet fruit in autumn.

**Hydrangea Paniculata Grandiflora**—A fine hardy shrub which is very popular, easy to grow and blooms the same year it is planted. The flowers are in immense panicles, creamy white at first, changing to pure white, and turning pink and brownish with age. It blooms in August and continues through September. The flowers will be larger and finer if given good rich soil, and the plants cut back

each spring fully one half the past year's growth.

**Hydrangea Aborescens Grandiflora** (Hills of Snow). A new variety with large white flowers resembling Snowball. The flowers are produced continually from June until late August.



**Hydrangea.**

**Mock Orange** (Syringa). One of the most desirable shrubs. Flowers are one or two inches in diameter, pure white and delightfully fragrant. It grows to a height of eight to ten feet and blooms profusely in the spring.

**Mock Orange, Golden Leaved**—A dense low growing bush with bright golden green leaves and white flowers. The best of the golden leaved shrubs.

**Privet, Amoor**—A hardier variety than California Privet and as desirable for all purposes. It may be trimmed into any shape desired; in a hedge or as specimens. The leaves persist until late in fall. Very healthy and vigorous.

**Privet Pollish**—This we believe is the hardest of the Privet. It may be sheared to any extent desired and is perfectly smooth. One of the best hedge plants.

**Siberian Pea Tree** (Caragana Arborescens). A dwarf tree with bright green bark and yellow leaves and pea flowers in spring. Hardy anywhere.

**Smoke Tree or Purple Fringe** (Rhus cotinus). A low shrubby tree covered with clusters of feathery flowers in summer giving the appearance of smoke.

**Snowball**—A well known shrub, producing its snowy white flowers in large balls or masses in May or June. For the best effect, trim into a round ball shaped bush.

**Tamarix**—This hardy and very beautiful shrub of strong but upright growth is clothed with foliage as light and feathery as that of the asparagus, and its delicate fringing pink flowers are borne in spikes. Very ornamental at the back of shrubbery and desirable for decorations and bouquets.

**Tartarum Honeysuckle**—Bush or Upright Honeysuckle. An old-fashioned



**Snowball.**

shrub with slender upright branches and small fragrant flowers in May, followed by red or orange yellow berries. Three colors, red, white and pink.

## Climbing Vines

**Actinida Polygama** (Silver Sweet Vine)—A rapid growing vine with shining green lanceolate foliage and small white fragrant flowers. Good for covering trellises or walls.

**Ampelopsis Engelmanni** (Engelman's Ivy). Not poisonous. Similar to our native Virginia Creeper but is more dense, rapid growing and clings readily to any smooth surface. A very desirable vine for all kinds of walls, tree trunks, etc.; much harder than Boston Ivy.

**Ampelopsis Tricolor**—A fine vine with foliage variegated with white and pink. In fall it is covered with metallic blue berries. Does not cling to a wall but is fine for a trellis.

**Ampelopsis veitchii** (Boston Ivy). An unexcelled vine for covering smooth walls. Foliage rich olive green, changing to crimson in autumn. Should be planted in protected places in Central Iowa or North.

**Honeysuckle, Scarlet Trumpet**—Bears coral-red flowers throughout the summer and fall.

**Trumpet Flower**—A splendid vine, vigorous and hardy, and a very rapid grower; well adapted for covering unsightly objects. The flowers are large, being fully four or five inches long and in clusters.



**Wistaria**—A beautiful climber of rapid growth, often growing fifteen to twenty feet in a season, and producing long, pendulous clusters of pale blue flowers about the size and shape of a bunch of grapes; sometimes gives second crop of flowers in the fall.

**White Wistaria**—A white form of the above.

**Wistaria Multijuga**—A new Japanese variety with extremely long loose panicles of deep purple flowers.

## Clematis

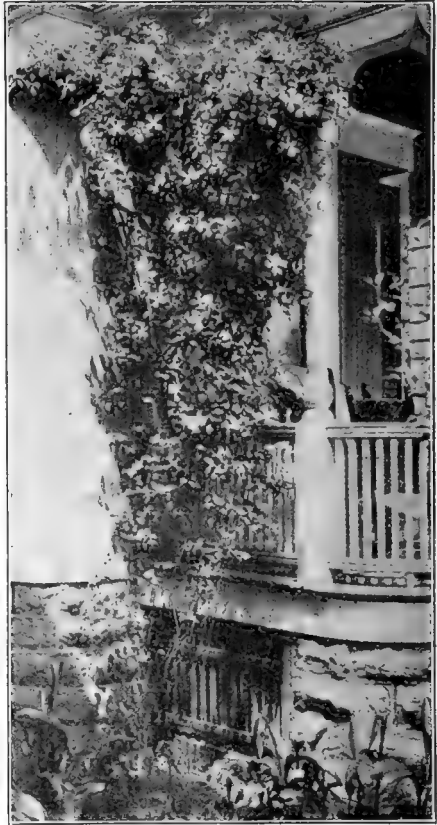
These vines delight in a sunny situation and good rich soil. They are perfectly hardy but the top kills back in winter. There is nothing better for training on pillars, trellises, porches, or for covering rocks or old stumps. All strong field-grown plants.

**Clematis .Paniculata**—This remarkable flower blooms in September. It is one of the finest hardy climbers, with handsome foliage, and of very vigorous, rapid growth. In late summer it produces dense sheets of medium sized, pure white flowers of the most pleasing fragrance, making a gorgeous sight. This is a new Japanese plant, perfectly hardy and finely adapted for covering any object.

**Clematis Jackmanii**—This is perhaps the best known of the Clematis. The plant is a free grower, and an abundant and successful bloomer, producing flowers until frost. Flowers are large and of an intense violet-purple, remarkable for their velvety richness. It has no superior. July to October.

**Clematis Madame Edouard Andre** (The Red Clematis)—A hybrid of the popular Jackmanii, which it much resembles in freedom of bloom, vigorous growth and shape of flowers, but is a distinct carmine-red in color.

**Clematis Henryi**—The best white variety. Fine large creamy white flowers: strong grower, hardy, perpetual bloomer.



**Clematis Jackmanii.**

## Roses

Our bushes are all strong, field-grown two-year-old plants on their own roots, and are not to be compared to the cheap bushes often offered which are budded on short-lived foreign stocks.

Plant them three to four inches deeper than they stood in the nursery and in the richest, best soil obtainable. Trim off nearly all the top and they will do much better than if it was left on. Use powdered sulphur for mildew, arsenate of lead for eating insects and tobacco infusion or strong soap solution for lice.

### Climbing Roses

**Crimson Rambler**—A well known rose, bearing numerous clusters of bright crimson flowers; a superb climber, very hardy and free flowering. One of the best for training on walls, pillars and fences. It gives universal satisfaction.

**Dorothy Perkins**—One of the best of all the climbers. Hardy, a good grower, and blooms very freely the first year set. The flowers are of good size, produced in enormous clusters, very dainty pink, fragrant, and last much longer than the other ramblers. The foliage is free from insects and diseases.

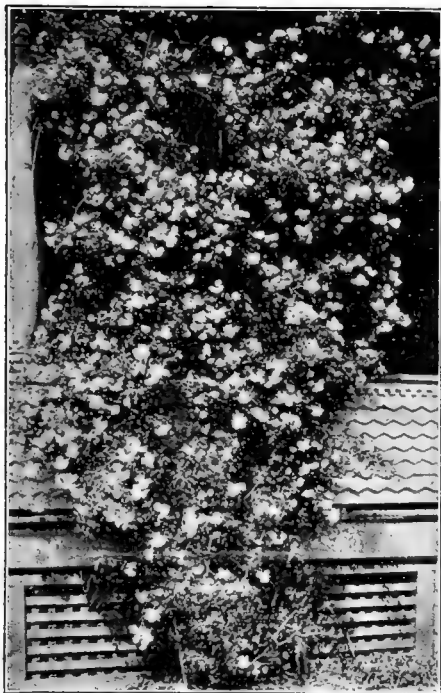
**Excellsa** (Red Dorothy Perkins)—A bright crimson form of the Dorothy Perkins

with the same clean foliage and habits. On this account it is pronounced by some of the leading rose growers to be the successor to Crimson Rambler.

**White Dorothy**—Similar in every respect to Dorothy Perkins except that it is white. One of the best of the new climbers.

**Prairie Queen**—An old, well known climber. Flowers double, bright pink, fading to nearly white.

**Tausendschon** (Thousand Beauties). A rapid growing, almost thornless climber of exceptional value and attractiveness. Its many flower clusters show every shade of rose and crimson, with white and yellow variegations.



Dorothy Perkins Rose.

## Half-Climbing Roses

**Baltimore Belle**—Very double, white with pink blush. One of the best climbing roses, but must be protected in winter.

**Grenville or Seven Sisters**—Large clusters with flowers varying from white to crimson. Luxuriant dark green foliage; perfectly hardy.

## Hybrid Tea Roses

**American Beauty**—Rich rosy crimson, delightfully fragrant and a very free, continuous bloomer; vigorous, healthy and moderately hardy.

**Gruss an Teplitz (Virginia R. Cox.)**—The flowers are a dazzling crimson, large and moderately double, produced in great profusion throughout the whole season. The bush is hardy, and a strong, vigorous grower. This is much the best rose of the class we have seen.

**La France**—A very popular variety. Buds and flowers of lovely form and of great size; exceedingly fragrant. Color, fine silvery-pink. It begins to bloom early and continues until frost.

## Hybrid Perpetual and Other Roses

**Frau Karl Druschki.** (White American Beauty). Pure white, large, fragrant, well formed, and very similar to American Beauty except in color. Very hardy and vigorous; by far the best white rose of all.

**General Jacqueminot**—This may truthfully be called the rose for the million. A universal favorite. Bright scarlet, exceedingly rich and velvety. One of the hardiest.

**Harrison Yellow**—A very bright yellow double rose, hardy and a profuse bloomer.

**Madame Plantier**—Pure white, produced in great abundance early in the season. An excellent hardy white rose.

**Paul Neyron**—One of the very largest roses known, often measuring 5 inches in diameter; color, bright rose; very fresh and pretty. A strong, healthy grower with clean, glossy foliage and one of the most prolific bloomers in the hybrid class. Young plants in the nursery rows bloom almost without intermission from June until October.

**Persian Yellow**—A perfectly hardy climber. Brightest yellow of all roses; produces an abundance of medium sized flowers in June.

**Prince Camille de Rohan.** (Black Prince) Very large, deep velvety crimson, almost black. Very fragrant. By all means include this in your collection.

**Ulrich Brunner**—A splendid rose and one of the best of the class. Flowers very large, well formed, brilliant cherry red, and highly fragrant; produced in great profusion. Vigorous, hardy and healthy.

**Sweet Brier** (English Sweetbrier). Much prized on account of the delightful fragrance of its leaves and young branches. Perfectly hardy and requires little care.

## Moss Roses

**Glory of Mosses**—Very heavily mossed; flowers glossy pink; fragrant. One of the best.

**Luxembourg Moss**—Large, bright crimson. A very fine, luxuriant grower and free bloomer.

**White Moss**—Large, full double, pure white and very fragrant. Perfectly hardy.



American Beauty Rose.

## Rugosa Roses

**Agnes E. Carman**—Flowers large, semi-double, fine in the bud state; rich deep crimson. A very free bloomer and continues a long time.

**Conrad Ferdinand Meyer**—This variety has the ornamental foliage of the Rugosa and the beautiful fragrant flowers of the Hybrid Perpetual. The flowers are large, double, very fragrant and of a delicate silvery pink. Very vigorous and hardy without protection.

**Hansa**—Violet-red, large fragrant and perfectly double. The flowers are in dense clusters which all bloom at once, thus appearing like one immense rose from a distance. Flowers are produced freely throughout the season. Absolutely hardy.

**New Century**—Large, clear flesh pink; flowers borne in clusters, perfectly double and full. Very fragrant and a wonderfully constant bloomer.

**Rosa Rugosa**—Foliage shiny, bright green; flowers single and very fragrant, bright rose color with yellow center.

The leaves and buds are very beautiful. In time of winter it bears bright red berries. Requires no protection whatever and is well adapted for hedges. Strong two and three year plants.

**Rugosa alba**—A pure white form of the above

## Baby Ramblers

Splendid varieties for bedding or for pot culture. They grow about 18 inches high and bloom profusely throughout the entire growing season.

**Pink Baby Rambler**—Brilliant rose colored flowers.

**White Baby Rambler**—Pure white flowers with yellow stamens.

**Erna Teschendorff**—A deep cherry red which does not fade easily. One of the very finest of Baby Ramblers.

Tree roses of Baby Ramblers, American Beauty, C. F. Meyer, Dorothy Perkins, F. K. Druschki, Gruss an Teplitz, Gen. Jacqueminot and Ulrich Brunner can be furnished.

## Peonies

The herbaceous peonies have long been great favorites among hardy plants, but the wonderful improvements wrought by the plant breeder in recent years make them far more popular than ever. Many of the improved varieties rival the finest roses in fragrance and coloring, besides blooming much earlier and being much larger.

Peonies do best in good, rich, deep soil and a sunny situation, although they do well in partial shade. They are hardy in the far north and west, requiring no protection. Once planted and started they need but little care. The blooms are often small or even single the first year after planting but increase in size and beauty each year. They should be planted in September or October if possible, but may be planted in the spring. Plant about three inches below the surface in deeply worked, rich soil. If planted in the spring they may not bloom until the next spring. We offer the following list of choice varieties at reasonable prices. If wanted in large quantities, please write for prices.



**Peony Festiva Maxima.**

**Alba Sulphurea**—White with yellow center. A fine flower and favorite.

**Andre Lauries**—Deep bright red, very double, and late. A grand flower which loves deep, rich soil.

**Festiva Maxima**—A large ball of white with center petals dashed with red; an early bloomer and splendid keeper. In great demand for cut flowers, and is very popular everywhere. One of the very best peonies known.

**Fragrans**—A bright deep rose color, very large and double; extremely fragrant and free blooming. A splendid variety.

**Francois Ortegat**—A very brilliant crimson, producing a blaze of splendor, almost purple. It is a vigorous and striking flower, with a delightful spicy fragrance. No collection is complete without it.

**Grandiflora Carnea Plena**—Variegated, robust and very free bloomer. Valuable for cut flowers; a charming flower of medium season.

**Grandiflora Rosa**—Pink and early. The outer and center petals are red; slightly fragrant. A prolific bloomer; robust and vigorous.

**Grandiflora Rubra**—This is a very king among peonies, and one of the latest. It seems to hold itself in reserve, getting strength to put forth an exhibition of splendor. Its flowers are of an immense size, intense and glowing; you look at them and think the best has been in reserve until last, and yet it is hard to call any one the best in this procession of peonies which has passed during the season.

**L'Esperance**—A beautiful rose-pink, fragrant, and an early bloomer; very fine for cut flowers. One of the best.

**Magnifica**—Large, delicate and fragrant; red, turning to pink.

**Marie Lemoine**—This flower fills all the requirements we demand of our favorites. It is as sweet as a rose. It opens slightly yellow, then fades to purest white.

**Officinalis rubra**—The old fashioned bright red very early flowering kind. They are always out for Decoration.

**Pottsil**—A splendid flower; deep crimson with bright yellow center. One of the earliest.

**Reeves**—An immense flower and free bloomer; light rosy pink, center petals dashed with red.

**Richardson's Rubra**—Late; deep crimson with a purple shade. A grand, fragrant full orb'd flower; one of the best.

**Rubra Triumphans**—Fragrant flowers of brilliant crimson. It does not bloom as soon as some others, the plants seem to require age, but are worth waiting for.

## Hardy Perennial Phlox



Perennial Phlox.

No class of hardy plants is more desirable. They thrive almost anywhere with a little care, and are useful for borders about shrubbery and for groups. The flowers are very showy and brilliant and last through a long season. In the last few years they have wonderfully improved.

The following are some of the most choice varieties.

**B. Conte**—A glowing purple; one of the finest of the dark colored varieties. Tall.

**Caran d'Ache**—Geranium red with old rose shadings and white center. Tall.

**Eclairer**—Salmon and scarlet with crimson eye; medium.

**Henry Murger**—Very large, pure white with carmine center; tall.

**Lothair**—Carmine pink with crimson eye; medium. A splendid variety.

**Miss Languard**—A very early white variety with immense long heads; blooms from June to October. Medium.

**Obergartner Wittig**—Bright magenta with crimson carmine eye; large flowers and truss. Tall.

**Selma**—A pretty delicate rose with distinct red eye. Medium.

**Von Hochberg**—A brilliant crimson, the richest of its color. Tall.

**Von Lussberg**—Purest white, flowers very large; one of the best white varieties. Medium.

## Japanese Iris

These splendid flowers bloom about the middle of June and continue five or six weeks. They should have deep rich soil and plenty of water. The double are six petaled and the single three petaled. Order either by number or name.

- No. 28 **Tsurugi-no-mai**. Double; rich deep purple.  
 No. 4 **Yomo-no-umi**. Double. A fine free blooming early white.  
 No. 22 **Sano-watashi**. Double; white with canary yellow center.  
 No. 202 **Shi-no maki**. Single; rich royal purple.  
 No. 70 **Kimi-no-megumi**. Single; white, veined with purple.  
 No. 67 **Kigan-no-misao**. Single; a late flowering pure white.  
 No. 107 **Tokyo**. A splendid pure white.

## German Iris

These do best in a well drained sunny position and should be planted very shallow. They bloom in May and are among the very easiest of the hardy spring-flowering plants to grow.

- Order by number or name.  
 No. 1 **Honorabilis**. Standards golden yellow; falls rich mahogany brown.  
 No. 2 **Johan de Witt**. Standards bluish-violet; falls deep violet-purple, veined with white.  
 No. 3 **La Tendresse**. Ageratum blue throughout.  
 No. 4 **Mme. Chereau**. Standards and falls pure white; daintily edged with light blue.  
 No. 5 **Spectabilis**. Standards and falls rich violet-purple; the earliest in flower.  
 No. 6 **Pumila hybrida Cyanea**. Early; dwarf growing species; rich royal purple with darker shadings.  
 No. 7 **Orientalis**. An intensely brilliant blue, splendid for cutting. Tall.  
 No. 8 **Mrs. H. Darwin**. Pure white with slight crimson penciling. Medium.  
 No. 9 **Snow Queen**. Large ivory white flowers. Medium.

## Other Hardy Herbaceous Plants

### ALL STRONG 2 YR. OLD ROOTS

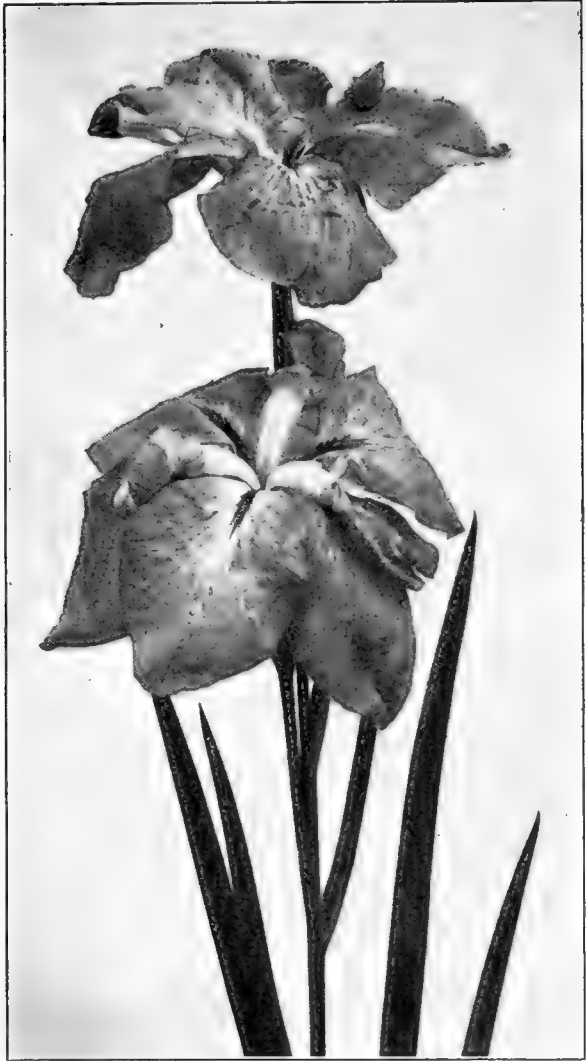
**Bleeding Heart**—An old fashioned flower with heart shaped pink flowers, which are always attractive. Does well anywhere, even in shade.

**Boltonia Asteroides** (False Chamonille). One of the showiest of hardy perennial plants with large aster-like, pure white flowers. It blooms throughout the fall and makes a dense mass of white flowers from July until September.

**Boltonia Latisquama**—Similar to the above but has pink flowers tinged with lavender.

**Giant Daisy** (*Pyrethrum Uliginosum*). One of the very finest autumn flowering plants. It grows four feet or more high, and is covered with very large white daisy-like flowers from August until frost. The plant also makes a handsome appearance when not in bloom.

**Golden Glow**—A hardy perennial plant,



Japanese Iris.

growing six to eight feet high, branching freely, and bearing on long, graceful stems hundreds of exquisite double blossoms of the brightest golden color, and as large as the Cactus Dahlia.

**Red and Yellow Columbine**—Has very long spurs and is very beautiful.

**White Columbine**—Blossoms in spring and early summer.

**Yucca Filamentosa**—An interesting and tropical appearing plant which will endure any of our northern winters and is therefore valuable for those localities where flowering plants are scarce. It is an evergreen perennial, throwing up in the middle of the summer, flower stalks three feet in height, bearing a profusion of creamy-white, bell-shaped blossoms. One of the most beautiful plants for the lawn.

## Hedge Plants

Also see their descriptions in evergreens, shrubs and roses.

**American Arbor Vitae**—The commonest evergreen hedge plant; it bears any amount of shearing and will endure considerable shade if it has plenty of moisture. Plant 15 to 24 inches apart.

**Siberian Arbor Vitae**—A better but slower growing variety than the American Arbor Vitae. Plant 18 to 30 inches.

**Spruce in order of their preference—Black Hills, White, Norway.**

By planting a small size and pruning it regularly, these make a splendid hedge, but must be allowed to increase in size each year.

**Barberry (Berberis Thunbergi).** The best of the barberries. Nothing excels this for a dwarf deciduous hedge. It is

thorny enough to repel small animals, easy to keep in order, as it needs little shearing, but may be sheared as much as desired. Set 9 to 15 inches apart.

**Hydrangea Paniculata Grandiflora**—This makes a very showy hedge which is perfectly hardy and always a success. It has no thorns and blooms over a long period. Plant 15 to 18 inches apart.

**Rosa Rugosa**—The white and red forms are unexcelled for a flowering hedge. They are thorny enough to keep out intruders, perfectly hardy, and always attractive. Plant 18 inches apart.

**Polish Privet**—The hardiest and best of the privets for the North. It can be sheared as much as desired, remains green until late in the season, is not thorny, and the foliage is always healthy and bright.

## Forest Tree Seedlings

These are just the thing for starting hedges, screens, windbreaks and timber plantations. If wanted in large quantities, write for special prices.

No matter how valuable the land every farmer can make a woodlot profitable. It can constitute the windbreak and at the same time furnish posts and repair material and fuel. There is much land along streams which might be planted to trees and would become very valuable, instead of furnishing only poor pasture as it does now. The time is soon coming when good timber will be in great demand in this state.

Where planted for groves, cultivated crops may be planted between the rows for several years. The land may be planted to corn and a seedling planted in the place of every alternate hill. In this way the seedlings will get the necessary cultivation.

**American Ash**—A valuable variety to plant because of the high value of the wood for agricultural implements, repair purposes, etc.

**Box Elder.** Valuable chiefly in the semi-arid West and Northwest because it grows rapidly and stands much drought and cold.

**Catalpa Speciosa (Hardy Catalpa)**—These are grown from seed collected from trees of known hardiness. This is one of the most valuable trees for planting up to Central Iowa. It grows very rapidly, reproduces quickly from the stump, and is very durable in the soil. Seedlings should grow two years, then be cut back so as to secure a straight stem. They should be well cultivated for several years.

**White Elm**—A very rapid growing tree on deep moist soil. The wood is excellent for fuel if well seasoned, and makes good lumber.

**European Larch.** Has produced higher annual net returns than any other tree in Iowa. It makes durable posts and poles, and good fuel. Plant six by four feet in any good land not excessively wet. This tree must be ordered early or we cannot fill the order. It starts to grow very early in the spring, consequently we will send these out by express before our regular deliveries.

**Honey Locust**—The most valuable two-purpose tree. It produces excellent posts and the best of fuel and is one of the most rapid growers. It is unexcelled for windbreaks and makes an excellent hedge which will stand severe pruning.

**Russian Mulberry**—Valuable for hedges and windbreaks. The wood is tough and durable in the soil. The fruit is edible and attracts birds from other fruits.

**Osage Orange**—This is hardy in the southern part of Iowa. It makes an im-

penetrable hedge and is one of the most durable woods known in the soil.

**Soft Maple**—A very rapid growing tree, valuable for fuel and windbreaks. Plant 8 by 8 or 6 by 8 feet. Maple groves in this state have yielded over \$10.00 per acre net annual returns at about twenty-five years after planting.

**Black Walnut**—A profitable variety to plant in deep, rich moist soil. It is valuable for the nuts and the lumber which is one of the highest priced of American woods.

## Fruit Tree Seedlings for Grafting or Budding

Consisting of apple, plum, pear, cherry and peach seedlings. We can supply these if ordered early, otherwise, our supply may be all be exhausted. Write for prices.

## Miscellaneous Supplies

**Raffia**—Best Madagascar—For tying buds and plants. 20c per pound; six pounds for \$1.00.

**Grafting Thread**—Unwaxed, 10c per ball; waxed, 15c per ball. If by mail, add 2c per ball for unwaxed and 7c per ball for waxed.

**Grafting Knives**—Hand forged, razor steel, 40c each. By mail 45c.

**Budding Knives**—Ebony handle, bone tip for raising bark, finest razor steel, 75c each. Add 5c for postage.

**Pruning Shears**—Best made; \$1.00 each. By mail, \$1.10.

**Root Grafts**—We have a large stock of most kinds of fruit tree seedlings, and will be prepared to put up first-class root grafts of almost everything mentioned in this catalogue. Send list of grafts wanted and we will make the price right. Orders for grafts must be received before March 1.



## Order No.....

# LINN COUNTY NURSERY, Center Point, Iowa

Ship the following trees and plants to

Draft       -       -       -       .....       Exp. Money Order       -       .....

[illegible]

**See other side.**



# MAIL ORDER PRICE LIST

## of

# LINN COUNTY NURSERY

SNYDER BROS., Props.

Center Point, - Iowa

These prices include packages, packing in the best manner, and delivery at the station at Center Point. They are for the best grades of stock only. Other sizes and grades will be quoted upon application.

### TREE FRUITS.

		Each.	Doz.	100
Apple	5-6 ft.	30c	\$3.00	\$20.00
Peach	4-5 ft.	25c	2.50	16.00
	3-4 ft.	20c	2.00	12.00
Pear	5-6 ft.	50c	5.00	40.00
Plum	4-5 ft.	40c	4.00	30.00
Cherry	3-4 ft.	30c	3.00	20.00
Including the Hansen Plums.				
1 year Hansen Plums, except Waneta, mostly switches.	4-5 ft.	35c	3.50	30.00
	3-4 ft.	25c	2.50	20.00
	2-3 ft.	20c	2.00	15.00
	18-24 in.	15c	1.50	10.00

### SMALL FRUITS.

Grapes—2 year No. 1 Concord	10c	\$1.00	\$7.50
1 year No. 1 Concord	7½c	75c	5.00
2 year No. 1 Other Varieties	15c	1.50	12.00
1 year No. 1 Other Varieties	12½c	1.00	8.00
Gooseberries—2 year No. 1	20c	2.00	15.00
1 year No. 1	15c	1.50	10.00
Currants—2 year No. 1 Perfection	30c	3.00	20.00
1 year No. 1 Perfection	20c	2.00	15.00
2 year No. 1 Other Varieties	15c	1.50	10.00
1 year No. 1 Other Varieties	10c	1.00	7.00
Raspberries—Transplants	Doz.	100	1000
Tips	(Ohta double these prices)	75c	\$4.50
	40c	2.00	\$40.00
Blackberries—Improved Snyder:			
Transplants	75c	\$4.00	\$30.00
1 year root cuttings	40c	2.00	15.00
Dewberries—Lucretia:			
Transplants	75c	\$4.00	\$30.00
Tips	40c	2.00	15.00
Strawberries—Senator Dunlap	25c	1.00	6.00
Americus	50c	2.50	20.00
Progressive	75c	4.00	35.00
Juneberries—Transplants, 2-3 feet	20c	2.00	

### GARDEN ROOTS.

	Doz.	100	1000
Asparagus—Strong divisions—			
2 year old roots	50c	\$2.00	\$15.00
1 year old roots	30c	1.25	8.00
Rhubarb—	Each.	Doz.	100
2 year old roots	10c	\$1.00	\$7.50
1 year old roots	7½c	75c.	5.00

# **EVERGREENS—TRANSPLANTED.**

		Each.	Doz.	100
White Pine.....	5-6 ft.	60c	\$6.00	\$45.00
Bull Pine.....	4-5 ft.	45c	4.50	35.00
Scotch Pine.....	3-4 ft.	35c	3.50	30.00
Norway Spruce.....	2-3 ft.	30c	3.00	25.00
White Spruce.....	18-24 in.	25c	2.50	20.00
Red Cedar.....	15-18 in.	20c	2.00	14.00
American Arborvitae...	12-15 in.	15c	1.50	10.00
				Each.
Black Hills Spruce, selected specimens.....	4-5 ft.		\$1.50	
Colorado Blue Spruce, green specimens.....	3-4 ft.		1.25	
	2-3 ft.		1.00	
	18-24 in.		75c	
Colorado Blue Spruce, selected blue.....			\$1.00	per foot
Koster's Blue Spruce, grafted.....			1.25	per foot
		Each.	Doz.	
Pyramidal Arborvitae .....	4-5 ft.	\$2.00	\$20.00	
	3-4 ft.	1.50	15.00	
	2-3 ft.	1.25	12.50	
	18-24 in.	1.00	10.00	
	12-18 in.	75c	7.50	
Siberian Arborvitae .....	2-3 ft.	\$1.00	\$10.00	
	18-24 in.	75c	7.50	
Golden Arborvitae, Geo. Peabody.....	2-3 ft.	1.00	10.00	
	18-24 in.	75c	7.50	
Mugho Pine .....	18-24 in.	75c	7.50	
	12-18 in.	50c	5.00	
Balsam Fir .....	4-5 ft.	1.00	10.00	
	3-4 ft.	75c	7.50	
	2-3 ft.	50c	5.00	
Concolor Fir—Fine blue specimens up to 7 ft.....			75c	per foot

## **SHADE AND ORNAMENTAL TREES.**

		Each.	Doz.	
Carolina Poplar .....	10-12 ft.	60c	\$6.00	
	8-10 ft.	45c	4.50	
	6-8 ft.	35c	3.50	
	5-6 ft.	25c	2.50	
	4-5 ft.	20c	2.00	
		Doz.	100	1000
1 year old .....	4-5 ft.	\$1.50	\$8.00	\$60.00
Not much	3-4 ft.	1.00	5.00	40.00
branched	2-3 ft.	60c	3.50	25.00
			Each.	Doz.
Hard Maple and Norway Maple.....	12-14 ft.	\$1.50	\$15.00	
	10-12 ft.	1.25	12.50	
	8-10 ft.	1.00	10.00	
	7-8 ft.	.80	8.00	
	6-7 ft.	.65	6.50	
	5-6 ft.	.50	5.00	
Purple Norway Maple .....	8-10 ft.	1.50	15.00	
	6-8 ft.	1.25	12.50	
	5-6 ft.	1.00	10.00	
Catalpa Speciosa .....	7-8 ft.	.60	6.00	
	6-7 ft.	.45	4.50	
	5-6 ft.	.35	3.50	
	4-5 ft.	.25	2.50	
European White Birch .....	8-10 ft.	1.00	10.00	
	6-8 ft.	.75	7.50	
	5-6 ft.	.60	6.00	
Linden, European and American.....	8-10 ft.	1.25	12.50	
	7-8 ft.	1.00	10.00	
	6-7 ft.	.75	7.50	
	5-6 ft.	.50	5.00	

		Each	Doz.
Horse Chestnut .....	5-6 ft.	.75	7.50
P'n Oak, Bur Oak.....	8-10 ft.	1.50	15.00
	7-8 ft.	1.25	12.50
	6-7 ft.	1.00	10.00
	5-6 ft.	.75	7.50
Mountain Ash, Oak Leaved.....	5-6 ft.	.75	7.50
	4-5 ft.	.50	5.00
American Sycamore and American Ash.....	6-8 ft.	.75	7.50
	5-6 ft.	.50	5.00
	4-5 ft.	.40	4.00
Ginkgo or Maidenhair Tree .....	5-6 ft.	.75	7.50
White or American Elm, Hackberry.....	8-10 ft.	.75	7.50
	7-8 ft.	.50	5.00
	6-7 ft.	.40	4.00
	5-6 ft.	.30	3.00
	4-5 ft.	.25	2.50
Laurel Leaved Willow and Soft Maple.....	8-10 ft.	.75	7.50
	6-8 ft.	.50	5.00
	5-6 ft.	.40	4.00
Purple Leaved Plum .....	4-5 ft.	.75	
	3-4 ft.	.50	
Russian Olive .....	6-8 ft.	.75	7.50
	5-6 ft.	.50	5.00
	4-5 ft.	.40	4.00
Bechtel's Double Flowering Crab .....	3-4 ft.	.75	
	2-3 ft.	.50	

#### WEEPING TREES.

		Each	Doz.
Birch, Cut Leaved Weeping.....	10-12 ft.	\$2.00	\$20.00
	8-10 ft.	1.50	15.00
	7-8 ft.	1.25	12.50
	6-7 ft.	1.00	10.00
	5-6 ft.	.75	8.00
	4-5 ft.	.50	5.00
	3-4 ft.	.40	4.00
Weeping Ash			
Weeping Elm .....	2 yr. heads	1.50	
Weeping Mulberry	1 yr. heads	1.25	
Niobe Weeping Willow .....	5-6 ft.	.40	4.00
	4-5 ft.	.30	3.00

#### CLIMBING VINES.

All 2-Year, No. 1.

	Each	Doz.
Large Flowering Clematis .....	\$ .60	\$6.00
Clematis Paniculata .....	.60	5.00
Other Vines .....	.30	3.00

#### ROSES.

All Field Grown, 2-Year, No. 1.

	Each	Doz.
Erna Teschendorf .....	\$ .60	\$6.00
Other Baby Ramblers .....	.50	5.00
Other Roses .....	.40	4.00

#### SHRUBS.

Lilacs—		Each	Doz.
Persian, Purple and White .....	3-4 ft.	\$ .35	\$3.50
	2-3 ft.	.25	2.50
Budded Varieties .....	3-4 ft.	.75	7.50
	2-3 ft.	.50	5.00

		Each	Doz.
Hydrangea Arborescens and	18-24 in.	.30	3.00
Spirea Anthony Waterer .....	12-18 in.	.20	2.00
Other Shrubs—			
Flowering Almonds			
Snowball			
Hydrangea Paniculata			
Syringas .....	3-4 ft.	.40	4.00
Spirea Van Houttei .....	2-3 ft.	.35	3.50
Siberian Dogwood	18-24 in.	.35	2.50
Snowberries	12-18 in.	.20	2.00
Bush Honeysuckles	Extra heavy specimens	.65	6.50
Tamarix			
Weigelias, etc.			

### HARDY PERENNIALS, BULBS, ETC.

		Each	Doz.
Peonies—Named Varieties, Clumps .....		\$ .50	\$5.00
Peonies—Named Varieties, strong divisions .....		.35	3.50
Peonies—Unnamed, separate colors .....		.25	2.50
Phlox—Named Varieties, clumps .....		.30	3.00
Phlox—Named Varieties, good roots .....		.15	1.50
German Iris, best named varieties .....		.20	2.00
Japanese Iris, best named varieties .....		.30	3.00
Golden Glow, clumps .....		.40	4.00
Golden Glow, good roots .....		.20	2.00
Boltonias			
Columbines } clumps .....		.30	3.00
Bleeding Heart } good roots .....		.20	2.00
Giant Daisy			
Yucca Filamentosa .....	3 yr.	.50	5.00
	2 yr.	.30	3.00

### HEDGE PLANTS.

See Also Evergreens and Forest Tree Seedlings.

		Doz.	100
Privets, Amoor or Polish .....	2 yr. transplants	\$1.50	\$10.00
	1 yr. transplants	1.00	7.50
Barberries—	2-3 ft.	2.50	17.50
Thunbergii .....	18-24 in.	1.75	12.00
Purple Common .....	12-18 in.	1.25	8.00
	9-12 in.	.75	4.00
Hydrangea Paniculata .....	12-18 in.	1.50	8.00
Spirea Van Houttei .....	12-18 in.	1.50	8.00
Spirea Anthony Waterer .....	10-12 in.	1.50	8.00
Russian Olive .....	18-24 in.	1.00	6.00
Osage Orange .....	12-18 in.	.40	1.50
Rosa Rugosa .....	2 yr.	2.00	12.00

### FOREST TREE SEEDLINGS.

		100	1,000
Ash, Elm, Black Locust and	2-3 ft.	\$2.00	\$15.00
Russian Mulberry .....	18-24 in.	1.25	11.00
	12-18 in.	1.00	9.00
	6-12 in.	.75	6.00
Catalpa and	2-3 ft.	1.50	13.00
Box Elder .....	18-24 in.	1.25	10.00
	12-18 in.	.75	7.00
	6-12 in.	.60	5.00
	18-24 in.	1.50	13.00
Honey Locust .....	12-18 in.	1.00	9.00
Walnut, Black and	18-24 in.	3.50	30.00
Butternut .....	12-18 in.	3.00	25.00

# **LINN COUNTY NURSERY**

**Snyder Brothers, Proprietors**

**CENTER POINT**

**Linn County**

**IOWA**





# SPRAYING INFORMATION

Spraying is now recognized as a necessary operation to keep plants and trees healthy, especially where grown extensively; accordingly we print a few of the standard formulas and a very brief outline of treatment for the common fruits. For more complete information send to the Horticultural Department at Ames, Iowa, for a bulletin on spraying.

## FOR BITING INSECTS.

### Lead-Arsenate.

Lead acetate (sugar of lead)	11 oz.
Sodium arsenate	4 oz.
Water	50 gals.

Pulverize and dissolve the acetate and arsenate separately and pour together. This formula may be used two or three times this strength without injury to plants. It adheres better than any other arsenical spray and is altogether more desirable.

## FOR SUCKING INSECTS.

### Kerosene Emulsion.

Kerosene (coal oil)	2 gals.
Rain-water	1 gal.
Soap	$\frac{1}{2}$ lb.

Dissolve soap in water by boiling; take from fire and while hot turn in kerosene and churn briskly for five minutes. To be diluted before using with nine parts water. For scale, insects and sucking insects on growing plants.

## TOBACCO INFUSION.

Tobacco (waste stems)	1 lb.
Boiling water	4 gals.

Add hot water to tobacco leaves and stems and let stand until cold. Strain and add one pound of whale oil soap or two pounds of soft soap to each fifty gallons of infusion. For lice.

## LIME-SULPHUR WASH.

Numerous brands of this can be bought more cheaply than it can be made in small quantities. For a winter spray, dilute so as to have twelve to fifteen pounds of sulphur to fifty gallons of water. Also valuable as a fungicide and may be used in place of Bordeaux Mixture by diluting so as to have about four pounds of sulphur to fifty gallons of water.

## FUNGICIDES.

### Bordeaux Mixture.

Copper-sulphate	5 lbs.
Quicklime (not air-slacked)	5 lbs.
Water	50 gals.

Dissolve the copper-sulphate (blue-stone) by suspending in a wooden vessel, such as a half barrel, containing twenty-five gallons of water, slack the lime in another vessel. The slacking should be done slowly, otherwise it is apt to be granular. Now dilute the slacked lime in twenty-five gallons of water and pour it and the copper-sulphate into the spray barrel at the same time. Do not pour in first one and then the other, as this will not allow the proper combination of chemicals to take place and a sediment will be formed that will clog the pump and nozzles. It is well to strain the solutions as they are poured together, for which purpose a copper strainer having eighteen to twenty-four meshes to the inch is recommended. Do not add the lime until ready to apply the mixture.

Stock solutions of dissolved copper-sulphate and lime may be prepared and kept in separate cans throughout the spraying season. The proportions of blue stone, lime and water should be carefully entered.

## Combination of Fungicide and Insecticide.

When spraying for a fungus disease, except when plants are in the dormant state, an arsenical mixture may be added to the Bordeaux to advantage, and the spraying will be effective against the biting insects as well as plant disease. To the Bordeaux add the usual amount of Paris Green or Lead Arsenate, letting the Bordeaux answer for the specified amount of water.

## General Treatment for Fruits.

**Apples and Pears.** For fungus diseases and eating insects, Lead Arsenate and Bordeaux, or Lime and Sulphur solution; first, just as buds open; second, just before blossoms open; third, just after petals fall; fourth, ten or twenty days later; fifth, late July or early August (this is important for the second brood of codling moth). For scales on any kind of trees use Lime and Sulphur Wash early in spring before growth, and late in the fall.

**Plums and Cherries.** For curculio, fruit rot and leaf diseases, Bordeaux and Lead Arsenate, or Lime and Sulphur solution; first, before blossoms open; second, just after petals fall; third, ten days later; fourth, ten to twenty days later; fifth late July or early August. For web worms, Arsenate or Lead whenever necessary.

**Peaches.** For leaf curl and fruit rot, Lime-Sulphate Wash before buds open.

**Grapes.** For mildew and black rot, Bordeaux Mixture; first, before new growth is eight inches long (important); second, just before blooming; third, just after fruit sets (important); fourth, ten to twenty days later.

**Currants and Gooseberries.** For leaf spot and worms, Bordeaux or Lime and Sulphur solution and Lead Arsenate; first, when worms appear; second, when fruit is half grown; third, Bordeaux after picking; fourth, repeat two weeks later if necessary.

**Strawberries.** For leaf roller, Lead Arsenate, double strength, just after moths are first noticed; second, repeat one week later. Cut leaves and burn as soon as fruit is off. For leaf diseases, Bordeaux when growth begins, at intervals of ten days if necessary.

**Potatoes.** For beetles, Lead Arsenate (double strength) when they appear and from eight to ten days afterwards. For blight, Bordeaux one and one-half times the standard mixture, with the Arsenate. For scab, soak seed potatoes two hours in Formaline (40 per cent solution) one pint to thirty gallons of water.

**Cucumbers, Melons, Etc.** For striped beetles, tobacco dust as soon as through the ground; for lice, Kerosene Emulsion applied to under side of leaves.



FALL BEARING STRAWBERRIES